

BUTANE-PROPANE

HEADQUARTERS FOR LP-GAS
INFORMATION SINCE 1931

News

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Roney **ROTARY GAUGES**
GIVE YOU

fool proof accuracy!

To measure the contents of your tanks easily and accurately, use Roney Rotary Gauges. These gauges operate on a positive, foolproof basis. Their patented Roney spring loaded sealing device eliminates leaking, sticking and binding. Readings from a Roney are dependable readings. Operators who know, use Roney.

Write for details and prices today

L.C. RONEY INC.

511 South Redondo Blvd.
Inglewood, California

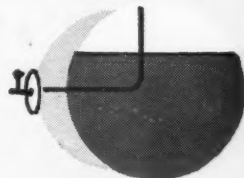
The R-310
For large storage
and transport tanks.
Other models to fit
your needs.



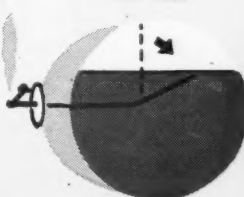
Here's How They Work

With the indicator in the 100 percent position, open the bleeder valve and bleed liquid out of dip tube until clear gas appears. Clear gas will escape because the dip tube is at the top of the tank.

Now rotate the indicator (this, in turn, rotates the dip tube). When a white mist appears, the end of the dip tube is at the liquid level. Stop rotation, close bleeder valve, take your reading. Reading shows quantity of fuel in tank in percent of total tank capacity.



Cross section
48" tank



OCTOBER, 1947

Check List to insist on . . . FOR TODAY AND TOMORROW



- 
- ✓ "Scalloped" Foot Ring
 - ✓ Depth-Controlled Stamping
 - ✓ Complete Finishing Procedure
 - ✓ Attractive Appearance
 - ✓ Minimum Seam Area
 - ✓ X-Ray Controlled, Smooth, Neat Appearing Circumferential Weld
 - ✓ Special, Improved Heat-Treatment
 - ✓ Light Tare Weight—Adequate Strength

You get all these features—and more—in Hackney L-P Gas Cylinders—preferred in the industry since its inception. They are features that grow more important with every year—in the long life of an L-P Gas Cylinder.

(See our 2-page spread on pages 4, 5)



Pressed Steel Tank Company

Manufacturers of Hackney Products

Main Office and Plant: 1487 South 66th Street, Milwaukee 14, Wis.

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CONTAINERS FOR GASES, LIQUIDS AND SOLIDS

For **LASTING** Good Measurement and Control

• **ROCKWELL-EMCONo.00LP-GASMETERS**



Especially designed for measuring LP-Gas. Smaller and lighter than conventional designs. Has aluminum alloy case housing double diaphragm measuring unit. Capacity approximately 90 cfh at 1/2 in. absorption of 1.5 sp. gr. gas. Use on bottle and tank gas as well as distribution settings.

• **EMCO No. 0, 1 AND 2 LP-GAS METERS**



For measuring domestic and commercial consumers drawing upon town distribution systems. No. 0 meter made with pressure cast aluminum alloy case, light weight, durable. Larger sizes have cast iron cases. All Rockwell-Emco aluminum or cast iron meters feature interchangeable internal mechanisms to simplify service.

• **EMCO 2 1/2, 3 AND 4 LP-GAS METERS**



Designed for measuring large volumes of either high or low pressure LP-Gas such as those generated by a central gas plant or consumed by industries. Strong outer cases provide high safety factor. The easiest meters to repair. May be fitted with Emco-reducers or Combined Record gauges to calculate to any base pressure volumes measured at higher pressures.

• **EMCO No. 4 1/2 AND 5 LP-GAS METERS**



Installed singly or in multiples, these meters are widely used to measure the entire output of central LP-Gas plants. Made with pressed steel cases for safety. Tall, slender design occupies but a minimum of space. Optionally furnished with Emco-reducers or Combined Record gauges to calculate to any base pressure volumes measured at higher pressures.

• **EMCO LP-GAS APPLIANCE REGULATORS**

For controlling pressure on all types of LP-Gas appliances. Provide highest burner efficiency; prevent pilot light outages. Sizes 1/8 in. through 1 1/4 in., made with attractive pressure cast aluminum alloy bodies and covers. Larger sizes of cast iron.



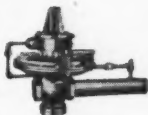
• **ROCKWELL-EMCO EJECTOR SERVICE REGULATORS**

For reducing distribution pressures in pounds to controlled utilization pressures in inches of water. The ejector principle provides automatic outlet pressure boosting to compensate for increased demands. For safety there is a simple, foolproof internal relief valve.

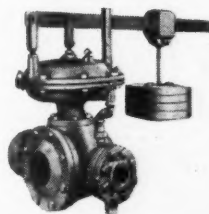


• **EMCO "1001" REGULATORS**

Will economically handle a diversity of applications including small distribution system control, industrial burners, and large meter settings. Has pilot loaded diaphragm. Will reduce inlet pressures up to 200 psi to outlet pressure range of from 2 oz. to 60 psi through change of springs. Size 2 in. only.



• **EMCO BALANCED VALVE REGULATORS**



The high pressure type is made with either lever and weight or pilot loaded diaphragm controls. Reduce inlet pressures up to 600 psi to outlet range of 2-500 psi by changing diaphragm head. Sizes 2 in. to 12 in. Low pressure regulators, weigh loaded, reduce inlet pressures of 150 psi maximum to outlet range of from 1 oz. to 2 1/2 psi by changing diaphragm head. Sizes 2 in. to 12 in.

EMCO LP-GAS METERS AND REGULATORS

PITTSBURGH EQUITABLE METER DIVISION

ROCKWELL MANUFACTURING COMPANY, PITTSBURGH 8, PA.

Atlanta Boston Chicago Houston Kansas City Los Angeles
New York Pittsburgh San Francisco Seattle Tulsa



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Reg. U.S. Pat. Off.

Editorial

LYNN C. DENNY, Editor
ROBT. C. SMITH, Assistant Editor
EDWARD K. TITUS, Eastern Editor
PAUL LADY, West Coast Editor
H. W. WICKSTROM, Technical Editor
O. D. HALL, Mid-Continent Editor
FREDERICK L. DALTON, Art Director

Executive

JAY JENKINS, President and Publisher
JAMES E. JENKINS, Secy.-Treas.

Publication Office

LOS ANGELES (14)—1709 W. Eighth St.
Phone: DREXEL 4337

Branch Offices

NEW YORK (17)—52 Vanderbilt Ave.
Phone: MURRAY Hill 4-1880

GERARD A. REGAN, Manager

CHICAGO (3)—1064 Peoples Gas Bldg.
Phone: WABASH 2589

DAVID CARMEN, Manager

DALLAS (8), TEXAS—2411 Nicholson Dr.
Phone YALE 2-9455

ROBERT B. FARSON, Manager

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BUTANE-PROPANE News



JOHN! STOP DREAMING THOSE
HORRIBLE SITUATIONS! YOU KNOW WE'LL
HAVE ENOUGH ANCHORGAS TO LAST ALL WINTER
SINCE WE FILLED OUR BIG NEW STORAGE TANK!

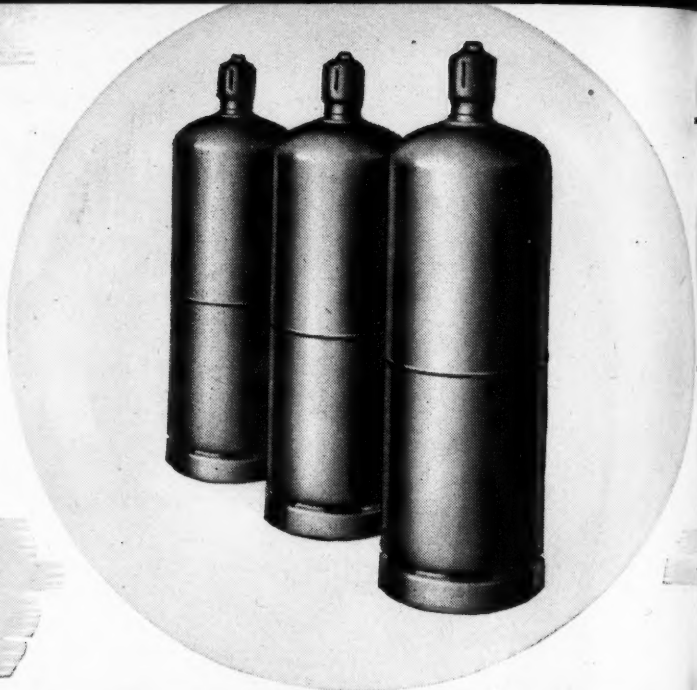
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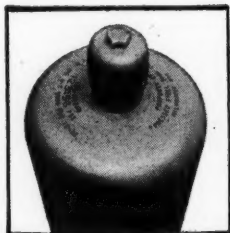
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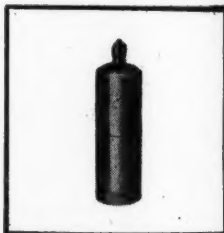
OCTOBER — 1947



IMPROVED "SCALLOPED" FOOT RING. with top curved edge butted against cylinder head, and completely welded, eliminates hard-to-clean crevices, permits thorough inspection and affords complete ventilation—and tests show it has greater strength.



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MILWAUKEE

Pressed Steel

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ANCE

ACTION

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COMBINES AUTOMATIC HEAD, POUNDS-TO-INCHES REGULATOR, AND SAFETY RELIEF VALVE IN SAME HOUSING

SIMPLER INSTALLATION. ONE UNIT INSTEAD OF TWO

AUTOMATIC HEAD DRAWS ONLY FROM ONE CYLINDER AT A TIME

INSURES COMPLETE EMPTYING OF CYLINDER BEFORE BEING REMOVED

SWITCHES AUTOMATICALLY TO RESERVE CYLINDER WHEN SERVICE CYLINDER IS EMPTY PERMITTING UNINTERRUPTED SERVICE

MAKES SERVICING EASIER AND MORE CERTAIN

TOGGLE-ACTION, UNDER ADVERSE CONDITIONS, CUTS CUSTOMER COMPLAINTS AND REDUCES MAINTENANCE COSTS

Meters to Meet Every Market Requirement of LP Gas

American Meter Company, with more than a century of service to the Gas Industry, provides a complete line of accurate, dependable meters for LP Gas with a wide selection of indexes.

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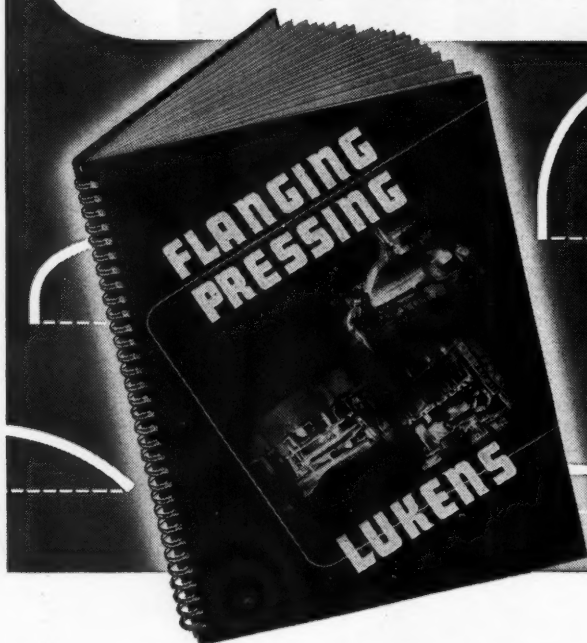
**American LP Gas
Meter, Type 2-B**



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**Large capacity meters
are available for commercial and industrial
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Speed your Production with **STANDARD HEADS**



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For LP-Gas cylinders, tanks, transport trucks and other equipment using spun or pressed heads—choose heads of standard size and shape from this engineering design data book. You'll save time and money. Of course, where special heads are necessary, Lukens can supply them, too.

Write today, on your company letterhead, for a free copy of this 132-page manual "FLANGING and PRESSING". Lukens Steel Co., 422 Lukens Building, Coatesville, Penna.



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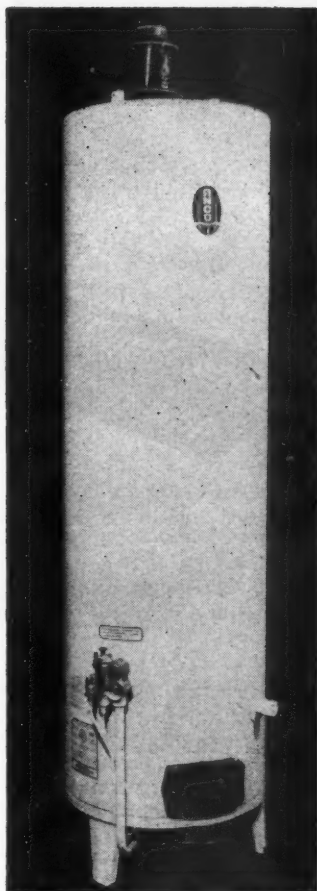
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BUILDS

Sales



Designed for eye appeal as well as efficiency the new ANCO Hot Water Heater meets your customers demands for smart appearance . . . and efficiency.

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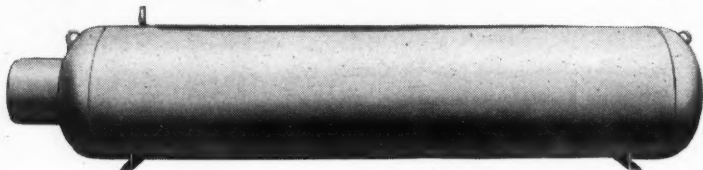
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More than 25,000
now in service



PROVIDING ALL THE BENEFITS OF PIPED GAS FOR ALL LOCATIONS!

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SMITHway Systems open up a new and bigger future for the widest possible use of LP gases. They make LP gases available not only for cooking and refrigeration, but for *all* heat,

power, and light uses in the home.

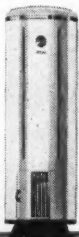
They make economical LP gases available for many *new* uses on the farm, ranch, and plantation. They make LP gases available for many uses in business and industry.

All are prospects for SMITHway *Combination* LPG Systems . . . now!

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Combination Systems

ARE SO POPULAR TODAY

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OCTOBER — 1947

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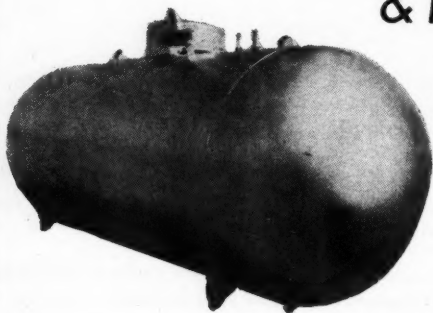
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Your Customer Will Like the Trouble-Free
Service our Systems Give.



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the vaporizer
that
solves
the winter
heating problem

the
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 DOMESTIC
VAPORIZER



the Best for domestic service

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JOHN E. MITCHELL COMPANY
 Dallas, Texas

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Now, to expand its extensive services to the industry, the Pacific Gas Corporation announces its entry into the domestic field with a completely integrated service from the oil-well to the consumer. PGC builds and equips complete bulk plants. PGC propane, carried in PGC tank-cars, is now furnished to franchised distributors. PGC utilization equipment, including bottles, skid-tanks, spherical containers, storage tanks, mixing and vaporizing apparatus will be included in the service.

PGC's nation-wide organization

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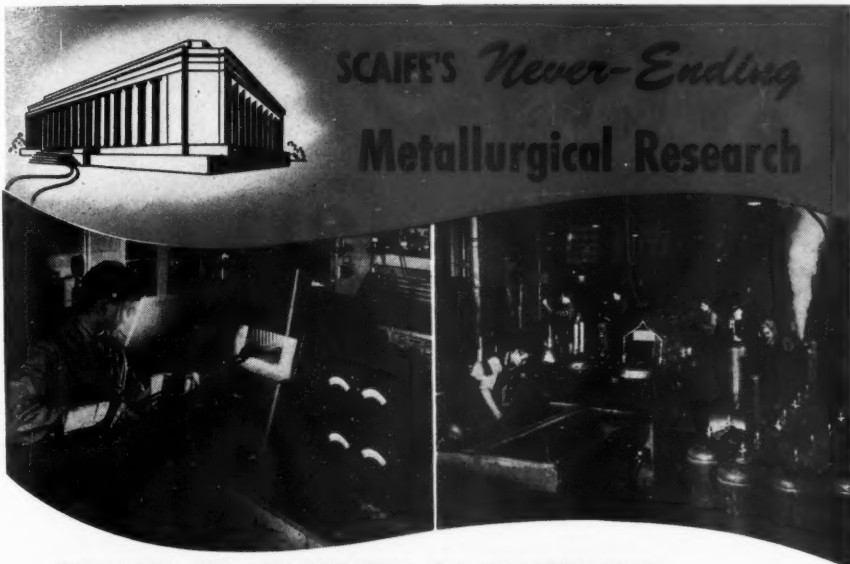
PGC propane and equipment distributorships are now available to responsible dealers in some areas. Added value of these franchises lies in the fact that PGC is a sales-minded, SALES-MAKING organization, furnishing its distributors with a complete advertising and promotion program. This includes direct mail folders, ready-to-print newspaper ads, training programs, etc.

Write today for full information concerning a PGC products franchise. It pays to be identified with a national organization.

Pacific Gas Corporation

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Scaife



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Founded 1802



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Representatives in Various Cities — West Coast: Southern California: Wm. C. Lee, Pasadena, Calif.

Opportunity

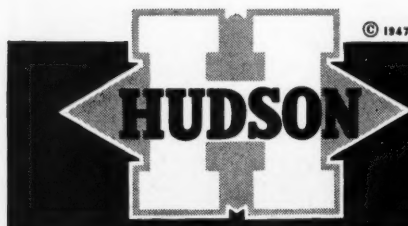
**Every poultry raiser a prospect for
HUDSON-HART Gas Brooders**

An unusual opportunity for easy, profitable sales is offered by the Hudson-Hart Gas Brooder. This equipment is a "natural" for dealers serving gas users. Here's why: The Hudson-Hart Gas Brooder gives poultry raisers exactly what they want and need—carefree, **AUTOMATIC** brooding. Just point out the convenience and freedom from daily drudgery this brooder brings. Needs virtually no attention—dependable in coldest weather—designed to raise vigorous, healthy, profitable, poultry.

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Write, wire or phone for details. No obligation.



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H. D. HUDSON

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Years Ahead in Performance, Economy



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5 reasons why you should send your

Homemaker's DIGEST

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Woman's Home Companion			

"THE KITCHEN DOES THE WORK"
digested from the Woman's Home Companion
a feature of the fall issue of
HOMEMAKER'S DIGEST

customers the *HOMEMAKER'S DIGEST*



1. It builds good will . . . provides a service that women want and appreciate.
2. It's in a class by itself . . . competition has nothing to match it.
3. It sells Gas and Gas Service . . . hard and convincingly.
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★ McNamar

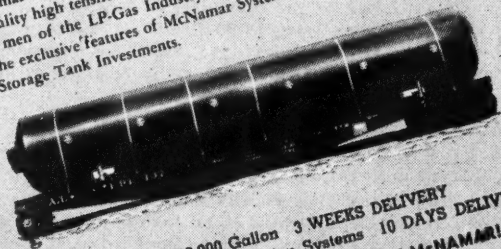
...a name written in LP-Gas Profit Ledgers.

"A Name that Stands for Quality"

L-P GAS STORAGE VESSELS



McNamar Storage Vessels ... 6,000 gallons to 30,000 gallons, (constructed of quality high tensile steel, ASME Code of construction) ... are outstanding with men of the LP-Gas Industry all through the country! Dealers COUNT on the exclusive features of McNamar Systems that pay EXTRA DIVIDENDS on Storage Tank Investments.



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6,000 — 7,000 — 12,000 Gallon Systems 10 DAYS DELIVERY

ALL UNION-MELT-WELDING USED AT McNAMAR!

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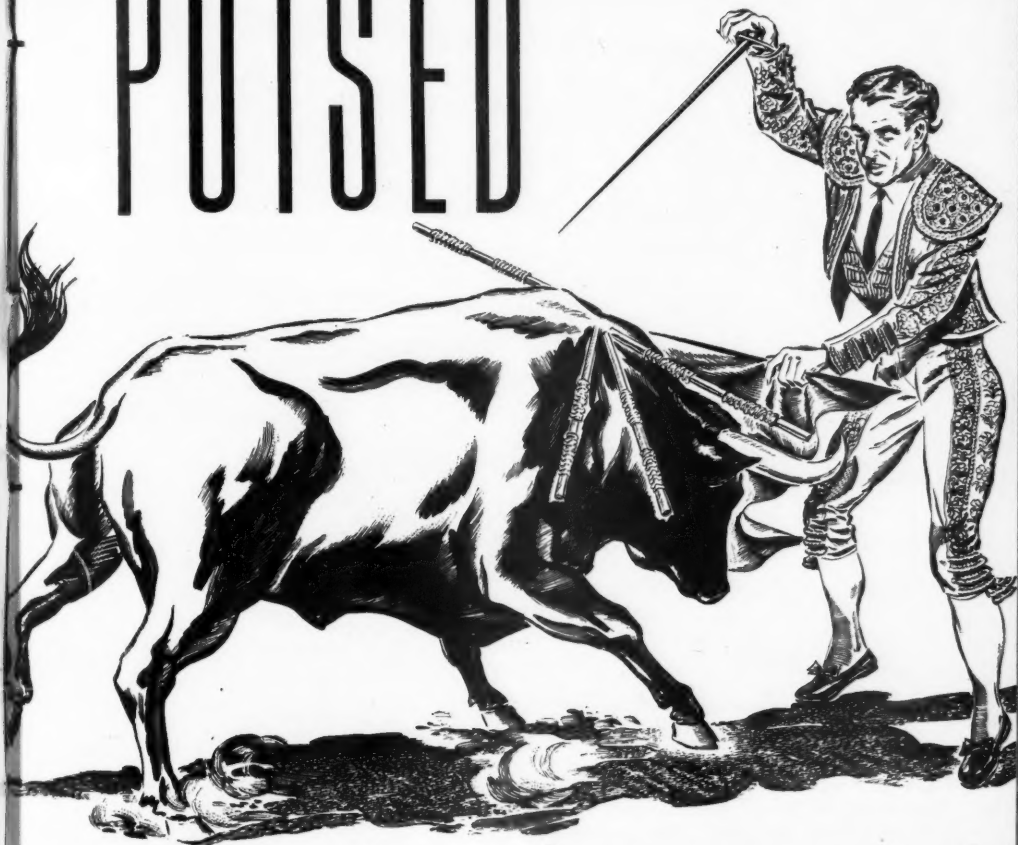
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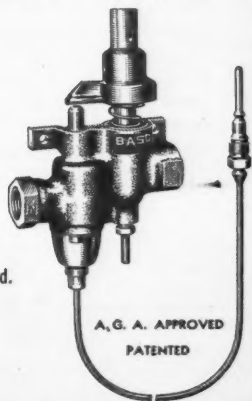


for instant action!

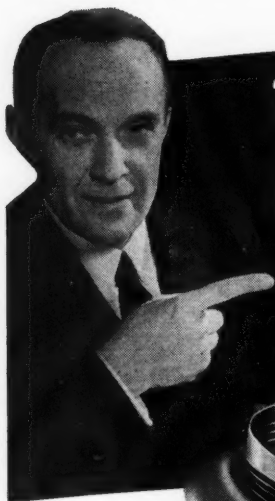
BASO ***poised for swift shutoff!***

Poised to check the discharge of unburned gas, BASO stands dependable guard over all types of gas-fired equipment. At the first sign of pilot flame failure, BASO snaps securely shut, sealing off all fuel flow. Patented BASO design prevents renewed flow of gas into the main burners until the pilot flame has been safely re-ignited. Protect your gas-fired appliances . . . always install . .

BASO . . . The Automatic Safety Pilot
Send for Bulletin—SB 300—"Application of BASOS"



MILWAUKEE GAS SPECIALTY COMPANY • MILWAUKEE 1, WISCONSIN



THE TREND IS TO METERED GAS

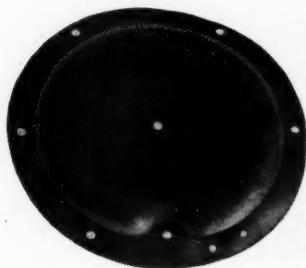
AND VULCAN DIAPHRAGMS
HELP INSURE
ACCURATE METERING



Meters and regulators for LP gas need the special characteristics which only VULCAN diaphragms afford.

Butane, propane and combinations of these gases tend to dry out and cause brittleness of leather diaphragms. This adversely affects accurate operation and causes costly replacement problems.

VULCAN diaphragms are scientifically controlled manufactured products. These non-leather diaphragms are molded to required shape. They remain soft and flexible for years, yet they REQUIRE NO OILING. For meters, regulators and governors, insist on VULCAN diaphragms.



VULCAN

PROOFING COMPANY

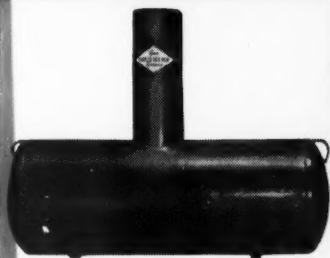
FIRST AVENUE & 58th STREET • BROOKLYN 20, NEW YORK

Your **BEST** *move is to* **SOUTHERN GAS!**

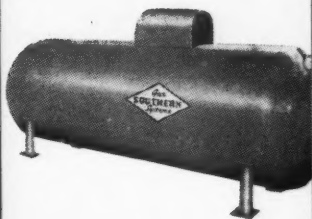
BULK STORAGE
2000 to 30,000
Water Gallons



**ABOVE GROUND
SYSTEMS**
118 Water Gallons to
2500 Water Gallons.
Complete in every
detail



Everything needed for an LP
Gas distribution set-up.



**BELOW GROUND
SYSTEMS**
A size for every need



TRUCK TANK
Custom built
or stock sizes

SOUTHERN GAS &



EQUIPMENT CO.

BERRYHILL BLDG.
SAPULPA, OKLA.

BRANCHES —
ENID, OKLA.; ATLANTA, GA.

TEXAS DIVISION — 4605 MONTROSE BLVD — HOUSTON

**HIDDEN
INGREDIENT**

1

INTEGRITY

Packed into every shipment of
Sinclair L.P. Gases

*is the integrity of Sinclair ...
a great name in oil*

Sinclair plans its Propane production
to meet its peak contract demand.

Keep us in mind for the day when
increased supplies will permit us to
serve new customers.

SINCLAIR

**SINCLAIR PRAIRIE OIL COMPANY
SINCLAIR BUILDING, TULSA, OKLAHOMA
LIQUEFIED PETROLEUM GAS DIVISION**

TANKS for transport



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Facilities...

a pulsating panorama of men and machines...
the very muscle and sinew of A.C.F. ... every
movement ruled by superb craftsmanship.

Large steel plates are deftly handled by huge
machines... great planers and rollers... modern
equipment that fits, welds, tests and x-rays...
creating better tank cars faster and more economically.
So when you are thinking of high-quality
transportation remember A.C.F.

american
A C car and
foundry Co.

"Quality and Vision in Railroad Transportation"

NEW YORK • CHICAGO • ST. LOUIS • CLEVELAND • PHILADELPHIA • WASHINGTON • PITTSBURGH • SAN FRANCISCO

OCTOBER — 1947

Have You Tried To Sell The Telephone Company?



Mutual Furnaces are ideal for all melting jobs. Above telephone lineman is melting compound for waterproofing cable splice. His melting time is 5 min. from start—many times faster than other fuels. Because this type of furnace is faster, safer, cleaner and easier to use, it's easy to sell. No. 2 Furnace is shown. Other Mutual furnaces are available for various types of work.

Your local telephone company is a potential user of LP-Gas. There are many uses for this superior fuel in the building of new services as well as the maintenance of old. Telephone linemen need fuel for melting lead, paraffine, rosin, etc. Speed is important to them. They welcome this superior fuel. Tell them about it—and gain new customers that will use twice as much gas as your average domestic customer.

MUTUAL Torches Speed Linemen's Work

Telephone linemen use Mutual Torches for soldering wire joints, instrument repairs, brazing operations and many other jobs. Because LP-Gas is hotter and always ready for use, it speeds work and cuts costs.



No. 4A TORCH—It concentrates heat where needed. No. 5, also available, has broad flame; for pre-heating and heavy welded jobs.



Mutual

LIQUID GAS EQUIPMENT CO., Inc.

3600 WEST IMPERIAL HIGHWAY, INGLEWOOD, CALIF.



the outstanding feature of american's **MOBILE
SAFETY
TANK**

There is no compromise with safety in American's Mobile "Safety" Tank. The patented, recessed forging head provides all valves and fittings with absolute protection. The cover plate keeps the valves and fittings completely enclosed — they cannot be knocked off either accidentally or by careless driving, nor can they be tampered with by inexperienced hands. The recessed forging head on the American Mobile "Safety" Tank permits use of a larger capacity tank in a given area — permits user to make longer hauls. Consult American — your inquiries are invited.

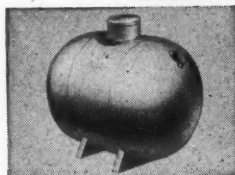
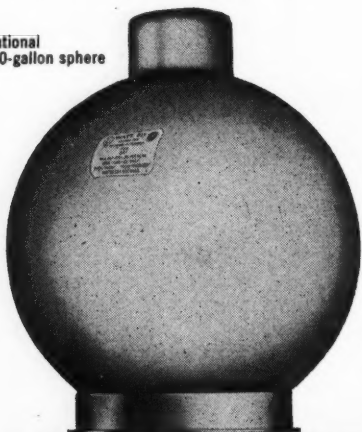
AMERICAN PIPE & STEEL CORPORATION
engineers, designers, fabricators

Alhambra, Calif., U.S.A. Cable Address: AMPSTEEL

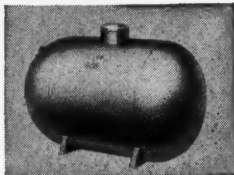
More Than Forty
Years Steel
Fabricating
Experience

7 Reasons why *National LP Gas Tanks are better*

National
300-gallon sphere



National 500-gallon tank



National 1000-gallon tank



1. Built to withstand high pressures. For utmost safety, all NATIONAL Tanks are built to withstand the highest pressure required for any commercial LP gases. They are made to A.S.M.E. Code for unfired pressure vessels for 200-pound working pressure. They meet all the requirements of the National Board of Fire Underwriters and bear the Underwriters' Laboratories, Inc., label.

2. Lightweight—a spherical design or a cylinder with hemispherical ends produces a tank of minimum weight for any given capacity.

3. Only the finest steel used—the U.S.S. trade-mark, your guide to quality steel, appears on all NATIONAL LP Gas Tanks. This steel can be depended upon because it meets all the requirements as specified by the American Society for Testing Materials A-70-44 flange quality specifications.

4. Three tank sizes being made—the 300-gallon sphere, and the 500-gallon and 1000-gallon cylindrical tanks with hemispherical heads. All three tanks are 51 inches inside diameter.

5. Completely equipped—and ready to install. All fittings, including the regulator, are attached. Tanks are air tested at the proper pressure after fittings are attached to assure their tightness.

6. Good looks—NATIONAL LP Gas Tanks look good on the home lot. Their good looks are readily maintained by a protective primer coat which each tank is given.

7. Designed and built by experienced men—The many years of experience gained by National Tube Company, the world's largest manufacturer of tubular products, in making all types of tubular goods, have been invaluable in the design and construction of better LP gas tanks.

To help meet the ever-increasing demands of this growing industry we have converted one of our most modern plants to the manufacture of LP gas tanks.

For further information write to National Tube Company, Frick Building, Pittsburgh, Pennsylvania.

NATIONAL TUBE COMPANY

Pittsburgh, Pa.

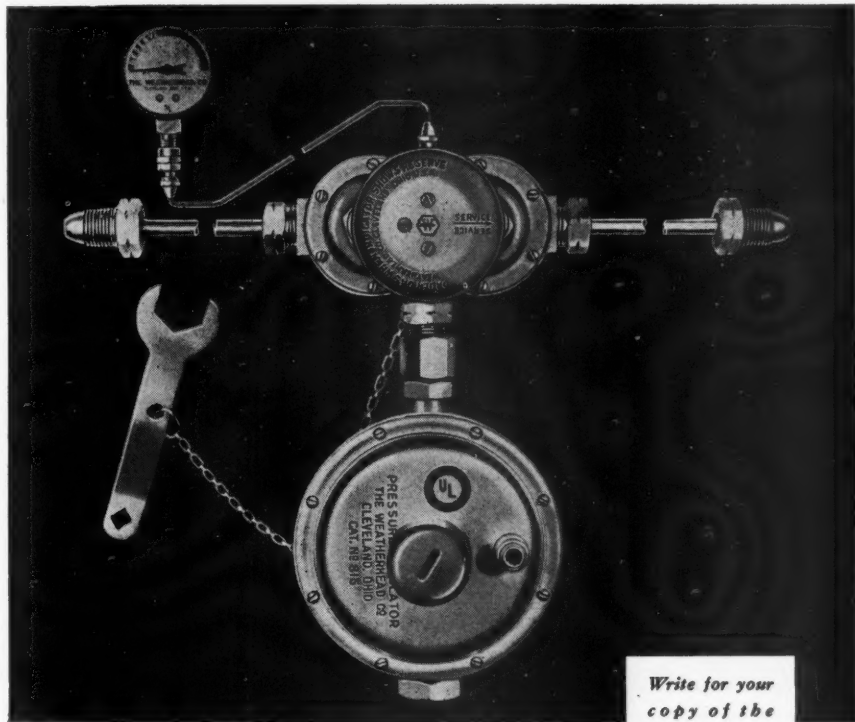
Conlumbia Steel Company, San Francisco
Pacific Coast Distributors

United States Steel Export Company
New York

UNITED STATES STEEL

GIVE YOUR CUSTOMERS THE BEST

THIS remote gauge automatic manifold assembly unit is made up of standard Weatherhead parts, conveniently packaged in an individual carton and includes No. 813R automatic manifold, gauge, regulator, two pigtails, POL wrench and chain. Order by Catalog No. 855C.



Write for your
copy of the
Weatherhead
LP-Gas Catalog

Look Ahead with



Weatherhead

The Weatherhead Company, Cleveland 8, Ohio

CLEVELAND • NEW YORK • DETROIT • CHICAGO • LOS ANGELES • HOUMA, LA.

OCTOBER — 1947

31

how long
is this
piece of string ?

You don't know until you measure it

No matter how much of an eagle eye you have, it would be strictly a matter of luck if you guessed the length of the above piece of string. And to know how accurate was your guess you would still have to measure the string.

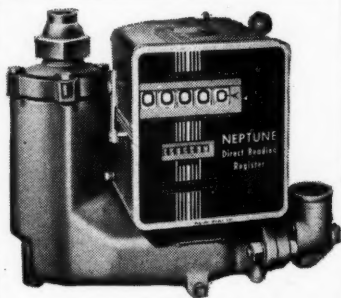
And in measuring your gallonage, too, there's one way to be sure—meter it . . . with a Neptune Red Seal Meter. And your auditing department and the tax collector will accept the figures.

Neptune Meters are precision engineered, each being composed of several, easily accessible units. Any necessary servicing can be done with ease and speed. And speaking of servicing did you know about . . .

NEPTUNE'S EXCLUSIVE MONEY-SAVING UNIT REPLACEMENT PLAN

Like any mechanical device, Neptune Meters need occasional attention. So to make your investment completely satisfactory, we have a plan that permits you to exchange worn units for factory rebuilt replacements, at low cost. Adequate stocks of these parts are kept on hand at our strategically located branches and petroleum equipment jobbers' warehouses. No more expensive rebuilding or repairing in the field. Your equipment is kept in constant service. You save money, time, temper.

FOR ACCURATE MEASURING OF YOUR GALLONAGE . . .



THERE'S A NEPTUNE METER to fit every one of your requirements. Special type of construction saves valuable pay-load space and weight. Optional is Print-O-Meter that provides fool-proof printed ticket showing exact quantity delivered.

NEPTUNE RED SEAL METERS

NEPTUNE METER COMPANY, 50 West 50th Street, New York 20, N. Y. Branch offices in: Atlanta
Boston • Chicago • Dallas • Denver • Kansas City, Mo. • Los Angeles • Louisville • Philadelphia
Portland, Ore. • San Francisco • NEPTUNE METERS, LTD., Long Branch, Ont., Canada



Model B-1

This unit consists of a 2½ gallon cylinder, regulator, 20 feet of hose, and a paint torch. Cylinder weighs 21 pounds empty; 33 pounds when filled with butane; 33½ pounds when filled with propane. Butane charge equivalent to 80 cu. ft. Propane charge equivalent to 90 cu. ft.

RAISES PAINT *Quickly*

To materially increase the production of your men engaged in paint burning, provide them with Ransome Paint Burners. With this equipment they can turn out twice the work with half the effort. The Ransome Outfit shown here produces a soft, hot flame just ideal for the job. The torch weighs about one-eighth as much as a quart size gasoline torch. No time is lost in generating or pumping up pressure. Torch is lighted with a match and stays lighted. It is a money maker for painting contractors.

RANSOME COMPANY

Designing and Constructing Engineers

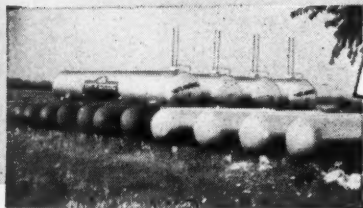
4030 HOLLIS STREET • EMERYVILLE • CALIFORNIA

Ransome

MORE PROOF...



Woodstock (Ill.) plant, Hicks Oils and Hicksgas, Inc. Bulk station and salesroom.



Roberts (Ill.) plant, featuring BS&B Domestic Propane Systems for profit!



Wide-awake, vigorous service and sales force of the Hicks Organization. C. W. Hicks, president, fourth from right, front row.



**IT'S
BETTER MADE**

Hicks Oils & Hicksgas, Inc.

Wholesale and Retail

ROBERTS, ILLINOIS
PHONE 113

August 29th, 1947
Black, Sivalls & Bryson, Inc.
Power and Light Building
Kansas City 6, Missouri

Gasoline and Oil Division

Gentlemen:

Your national and dealer cooperative advertising do justice to a fine product.

Through the added advantages of dehydration, backed by your dealer-manufacturer sales and service policy, we are able to provide a trouble-free unit to our customers which has been a great help in our merchandising program.

We want to take this opportunity to thank you for the prompt service BS & B has always given us and we will be looking forward to our continued pleasant relationship.

Very truly yours,

HICKS OILS & HICKSGAS, INC.

C. W. Hicks
C. W. Hicks

of MORE PROFITS for BS & B DEALERS!

● "National and dealer cooperative advertising . . . dealer manufacturer sales policy . . . prompt service." That's what Mr. C. W. Hicks, president of Hicks Oils and Hicksgas, Inc., Roberts Ill., says about Black, Sivalls & Bryson Domestic Propane Systems. You, too, will be pleased about the forceful Merchandising Plan BS&B has underway. Making friends and building sales for greater dealer profits! Write today for complete details. Address Propane Gas Equipment Division, Black, Sivalls & Bryson, Inc., Power and Light Building, Kansas City 6, Missouri.

FOREIGN INQUIRIES INVITED



Cable Address: BLACK, KANSAS CITY, U.S.A.

BLACK, SIVALLS & BRYSON, INC.

KANSAS CITY, MO.
CASPER, WYO.

OKLAHOMA CITY, OKLA.
CALGARY, ALTA.

RELIANCE REGULATORS

ARE DESIGNED AND TESTED
TO MAKE L-P GAS BEHAVE



A Reliance Regulator will make gas behave in every conceivable regulating application in the liquid petroleum industry. The wide range of sizes with many variations of Reliance Regulators provide positive and uniform control for all pressure conditions in L-P gas lines.

Since the birth of the L-P gas industry, Reliance Regulators have been preferred for their originality of design, by which positive lock-up and absolute control of

steady outlet pressure are assured under variable loads and inlet pressures.

Simplicity reduces installation costs, minimizes maintenance service, reduces size and weight for convenient handling. To make your L-P gas system behave, install Reliance Regulators.

**BULLETINS ARE AVAILABLE ON THE
COMPLETE LINE OF APPROVED RELIANCE
REGULATORS.**

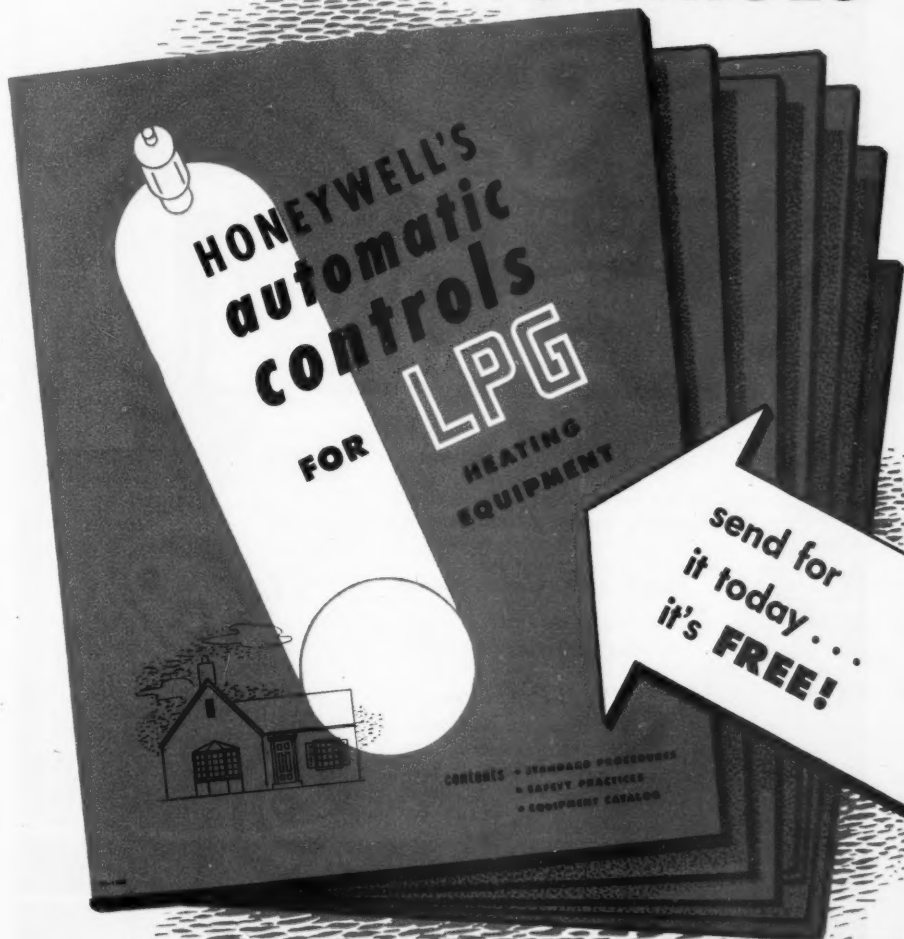
**AMERICAN
METERS**

RELIANCE REGULATORS

RELIANCE REGULATOR CORPORATION
1000 RESIDIAN AVENUE, ALHAMBRA, CALIFORNIA

THIS MANUAL
TELLS ALL ABOUT

L-P GAS CONTROLS



MINNEAPOLIS
Honeywell
CONTROL SYSTEMS

MINNEAPOLIS HONEYWELL-REGULATOR CO.
2642 Fourth Avenue South, Minneapolis 8, Minnesota

Please send my free copy of "Honeywell's Automatic Controls for LPG Heating Equipment"

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Address _____
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*The Heart
of the L-P Gas Industry*

TiteSeal

THE INDESTRUCTIBLE GASKET
AND PIPE-JOINT SEALING COMPOUND

*For
Absolute Leak-Proofing*

Never Dries or Cracks

Permits Easy Disassembly

Heat and Cold Proof

*Impervious to all
L-P Gases*



THE L P-GAS INDUSTRY IS **TiteSeal** BOUND



RADIATOR SPECIALTY COMPANY
CHARLOTTE 1, NORTH CAROLINA

- RADIATOR SPECIALTY COMPANY OF CANADA, LTD. TORONTO
- GOLDEN STATE RUBBER MILLS LOS ANGELES, CALIFORNIA

IF YOUR NEED IS URGENT

WE CAN USUALLY MAKE

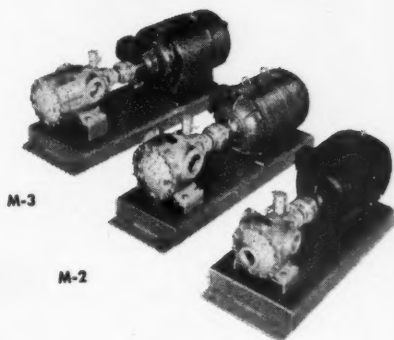
IMMEDIATE DELIVERY

ON ALL MODELS

SMITH
PRECISION

Butane-Propane

PUMPS

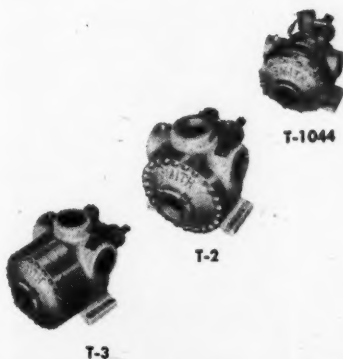


M-3

M-2

M-1044

INCLUDING EXPLOSION-PROOF ELECTRIC MOTORS



T-1044

T-2

T-3

The demand for models M and T Smith Pumps has increased steadily since the end of the war. However, the production capacity of the Smith factory has been increased right along to meet this urgent requirement of the fast growing L.P. gas industry.

We intend to continue our record of prompt delivery on all six models. These units are available for truck mounting direct connecting to power take-off or for bulk plant service with direct connected explosion-proof electric motors.

M-1044: 20 GPM at 1800 RPM, 1½ HP motor

M-2: 50 GPM at 1800 RPM, 3 or 5 HP motor

M-3: 100 GPM at 1800 RPM, 5 or 7½ HP motor

T-1044: 20 GPM at 500 RPM direct power take-off

T-2: 50 GPM at 500 RPM direct power take-off

T-3: 100 GPM at 500 RPM direct power take-off

Realizing that correct installation is of greatest importance for satisfactory service, we try to assist customers in this regard. Therefore, before you plan your installation, write us for our latest catalog and for valuable information contained in reprints of articles which we have contributed to Butane-Propane News.

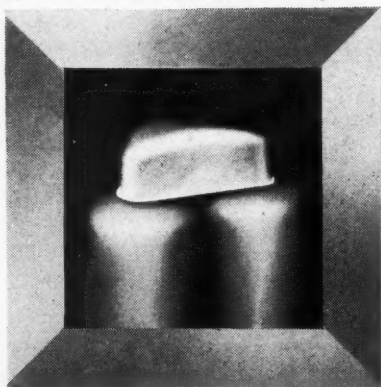
SMITH
PRECISION

PRODUCTS COMPANY

1135 MISSION STREET • SOUTH PASADENA • CALIFORNIA • PHONE PYRAMID 12293

OCTOBER — 1947

39



AN ADDITIONAL CHOICE

IN OUR D-1 SERIES NOW
AVAILABLE WITH A PRE-FABRI-
CATED BASE

THE picture above shows Stampings, Inc. popular D-1 all-aluminum housing. At the right is an illustration which shows the D-1 with its new greatly improved pre-fabricated light-weight base. (This model is named the D-1 PB).

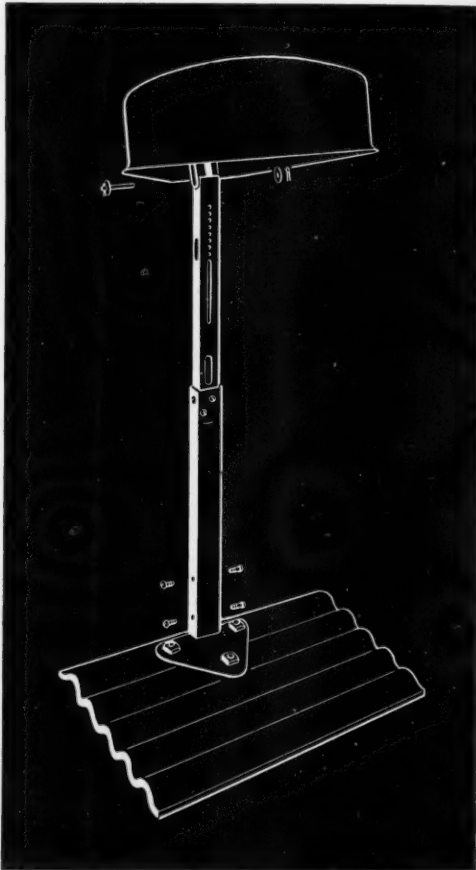
What It Is—What It Does:

1. This new base is made of asbestos and cement. It becomes stronger as time goes on. Tests show over 20 years of service. Surprisingly light in weight.
2. No paint or other finish necessary. Will not rust.
3. Does not absorb moisture—will not crack in winter.
4. Withstands 1100° — will not crack in summer.
5. Resists expansion or contraction under sudden changes.
6. A proven material adapted to a new use—made by the largest manufacturer of its kind in the country.
7. Easy to transport—easy to install because light-weight.
8. See, at right, how simple it is to erect the entire unit.

To obtain prices and complete information, ask us about the D-1 PB.



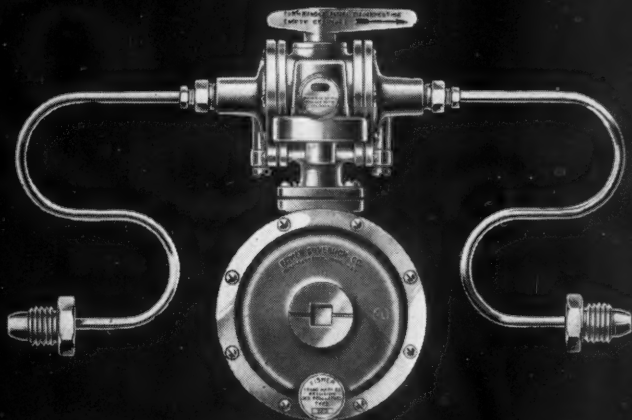
DAVENPORT, IOWA



Type 925 Regulator

Multiple Cylinder Automatic Change-over Assembly

FISHER
TRADE MARK OF
PRECISION
GAS REGULATORS



PURPOSE

The Type 925 assembly is designed to operate multiple cylinder systems with full automatic change-over from operating or "supply" cylinder to "reserve" cylinders without attention from the user. This assembly is particularly adapted for applications where automatic gas appliances that require constant gas supply are in use.

The automatic change-over feature of the Type 925 manifold assures a constant and unflinching gas supply. Manifold handle points to supply cylinder.

Change-over indicator on Type 925 mounts directly on front of manifold. On Type 925R it is supplied with 10 feet of $\frac{1}{8}$ " tubing for remote mounting. Indicator provides warning when Supply cylinder is exhausted and gas is being drawn from Reserve cylinder.

SPECIFICATIONS

CAPACITY—100 cu. ft. per hr. or more.
REDUCED PRESSURE—Standard setting 11" water column.

INLET CONNECTIONS—Connections at manifold are $\frac{1}{4}$ " inverted flare for pigtailed having POL on cylinder and.

OUTLET CONNECTION— $\frac{1}{2}$ " female pipe thread.

RELIEF VALVE—Built-in, set for 1 lb. and sealed.

FINISH—Iridite treated and hard lacquer finish.

INDICATOR—Standard is direct mounted. Remote indicator furnished when specified Type 925R.

MOUNTING—Two bottom feet with foot screws and washers.

SHIPPING WEIGHT—8 lbs.

Patent No. 2257249 and 2316373

FISHER GOVERNOR COMPANY

MARSHALLTOWN
IOWA

Eastern Office:

212 E. State Street, Westport, Conn.

Western Office:

2334 E. 9th Street, Los Angeles 21, Calif.

World's Largest Exclusive Manufacturer of Pressure Control Equipment

IN PRODUCTION NOW!

Regulation I. C. C. Cylinders

Stress Relieved

X-Ray Controlled

Automatically Welded

Everything for the L.P.G. Dealer in the pressure vessel line from 5 gal. cylinders to 30,000 gal. storage tanks. Including domestic systems, cylinders, truck tanks, skid tanks, storage tanks and refinery equipment.



100 Lb.
Size

20 Lb.
Size



Manufacturers of
ASME—API-ASME CODE, NATIONAL BOARD & UNDERWRITER'S APPROVED VESSELS

Inspected by
THE HARTFORD STEAM BOILER INSPECTION & INSURANCE COMPANY



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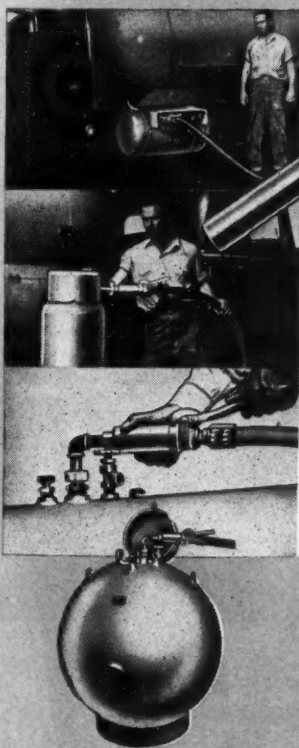


Dallas 2, Texas

FOR FASTER AND SAFER L. P. G. DISPENSING

SL

USE PW-200 QUICK FILLING SAFETY
HOSE NOZZLES IN YOUR OWN PLANT



GET THE FACTS

See It In Section—See It In Use
Illustrated bulletin No. 101 is now
ready for distribution. Send for
yours today.

For safety sake alone if for no other, this PW-200 Quick Filling Hose Nozzle fits squarely into every L. P. G. Dealer's operation . . . on his station dispenser and delivery trucks.

FILL MORE TANKS AND BOTTLES PER DAY. This fast operating, rugged, easy to handle dispensing nozzle may easily be attached to any L. P. G. filling hose.

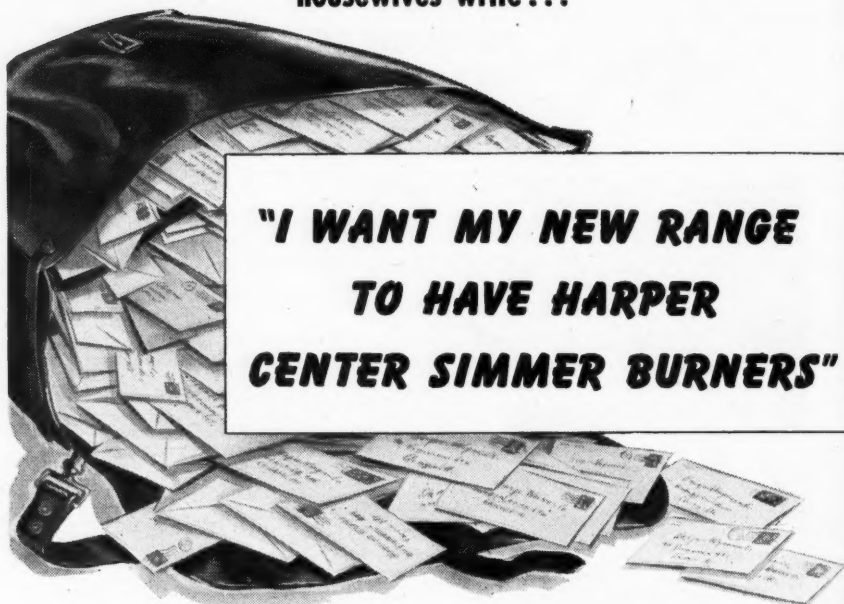
Built exclusively by Selwyn-Landers on Parkhill-Wade patents, scores of PW-200 hose nozzles have been in constant use for over 10 years with outstanding performance and complete satisfaction.

"Better Fittings Improve Your Product"

SELWYN-LANDERS
COMPANY

4709 East Washington Blvd., Los Angeles 22, Calif.
Designers and Manufacturers of L. P. G. Equipment

From Muleshoe, Texas, to Big Fork, Minnesota
housewives write . . .

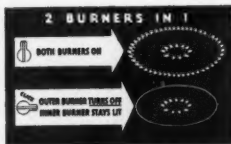
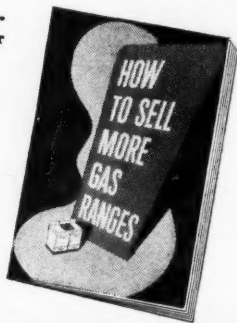


**"I WANT MY NEW RANGE
TO HAVE HARPER
CENTER SIMMER BURNERS"**

There is a fast-growing preference on the part of American housewives for ranges equipped with the new, improved Harper Center Simmer top burner.

Part of this demand may be traced to the educational program of advertising now appearing regularly in national magazines which are read by more than 21,500,000 women. Far more significant, however, is the "word-of-mouth" advertising coming from delighted women owning Harper equipped ranges.

Increase your range sales with our FREE booklet, "How to Sell More Gas Ranges." This handy manual contains a series of quick, convincing sales floor demonstrations that graphically illustrate the superiority of the Harper Center-Simmer Burner. Send for copies for your salesmen. Harper-Wyman Company, 8563 Vincennes Avenue, Chicago 20, Illinois.

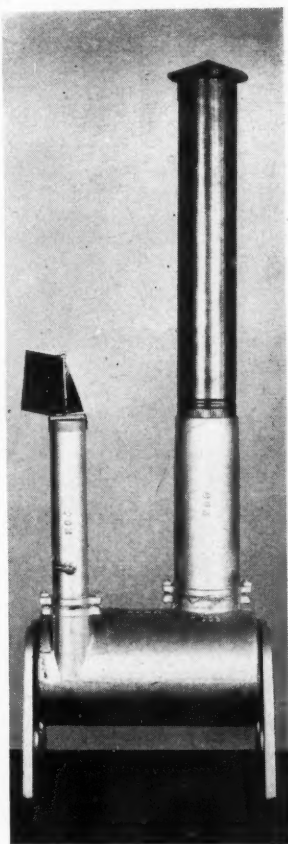


The Harper Center Simmer Burner operates on the unique principle of "2 burners in 1". . . a STARTING BURNER for frying and to start foods boiling, plus a small, economical COOKING BURNER, to maintain the cooking . . . both controlled by the same handle. It is subject to finer gradations of low heats—greater control and economy—than any other top burner made.

**HARPER CENTER
SIMMER BURNERS**

"... Holds the Lines
for Gas"





"Iron Man" STOCK TANK HEATER for BUTANE-PROPANE and Natural Gas

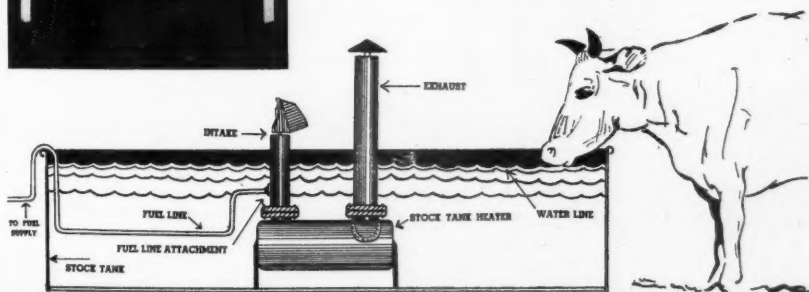
The "IRON MAN" heater has been expertly engineered. Ninety per cent (90%) of the heating value of the gas is put into the water, and means low operating cost to the user. Operates approximately ten (10) hours on one (1) gallon of PROPANE or BUTANE GAS.

FEATURES

No Moving Parts • 90% Efficient
No Oil Film on Water • Long Life
Minimum Maintenance
Low Operating Cost

RETAIL PRICE \$36.00

Dealerships and Distributor Territories
Open • Liberal Discounts



Write for Complete Details

HEAT EQUIPMENT COMPANY

805 So. Peoria Ave.

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**1ST
CHOICE**

WARREN

**BUTANE
AND
PROPANE**

WARREN PETROLEUM CORPORATION

TULSA, OKLAHOMA

Detroit

Mobile

Houston

Now Ready... A NEW CATALOG of Superior LP-GAS VALVES, FITTINGS and ACCESSORIES



This new catalog illustrates and describes SUPERIOR cylinder valves. Also globe, line and angle valves—diaphragm packless and wing cap—in flare or sweat sizes; sight glasses, suitable for any normal LP-Gas pressure; and a complete line of LP-Gas Fittings and Accessories.

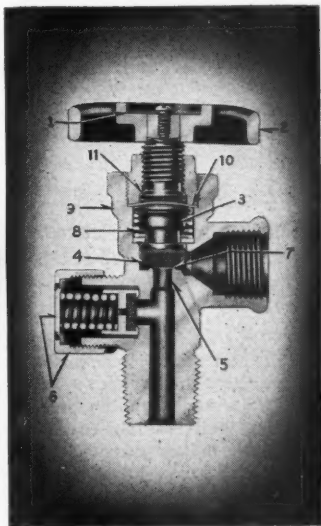
Write for Your Copy of Catalog LP-9 Today

CHECK THESE SUPERIOR FEATURES

1. Etched name and handwheel retainer plate
2. Octagon grip handwheel—easy to operate
3. Husky one-piece lower stem
4. Improved construction for locking seat securely
5. Generous opening permits rapid filling of cylinder
6. New, unique safety relief construction
7. Body seat design minimizes wear of vital parts
8. Strong spring assures positive valve opening
9. Sturdy forged brass body
10. Multiple metal diaphragm forms positive pressure seal
11. Metal-to-metal backseat when valve is fully opened

*Customer may specify special printing, and own trade name (special to order).

Superior LP-Gas Cylinder Valves are listed as Standard and for Re-examination Service by Underwriters' Laboratories, Inc.



Superior Valve and Fittings Co.



1509 WEST LIBERTY AVE., PITTSBURGH 26, PENNA.

OFFICES IN PRINCIPAL CITIES • STOCKS: CHICAGO (6) • LOS ANGELES (15) • JOBBERS EVERYWHERE

The Mueller Climatrol Type 500 Gas Conversion Burner is built in three sizes: 125,000, 175,000, and 225,000 maximum B.t.u. input. AGA-listed for operation at all altitudes with LP-Gas, and for natural, mixed, or manufactured gas fuel.



The Mueller Climatrol Conversion Burner delivers gas-heat comfort conveniently and economically

Each new user becomes an enthusiastic prospect for a completely LP-gas-equipped home

There's a big market for the Mueller Climatrol Conversion Burner — an attractive, efficient unit that delivers gas-heat convenience at minimum cost. And every Mueller Climatrol installation delivers modern comfort that really makes each user a *booster* for gas. Each installation assures you a loyal and profitable gas customer, and *more* than that — it wins the customer's confidence in LP-gas... "pre-sells"

him on the other equipment you offer for the complete LP-gas-equipped home!

With the complete Mueller Climatrol line, you can recommend the right size and type furnace for any home — each designed specifically for efficient and economical operation with LP-gas — each delivering the satisfying comfort assured by Mueller's 90-year performance record.

Sell the line that delivers the comfort your customers want — and builds future gas-equipment sales for you — Mueller Climatrol! For complete details write for bulletins today.



MUELLER

Climatrol

REG. U.S. PAT. OFF.

BG-3A

L. J. Mueller Furnace Co., 2004 W. Oklahoma Ave., Milwaukee 7, Wis.

"Thanks to Our Fuel Dealer"

...this winter we'll have plenty of gas with our larger

BUEHLER LP Gas Plant"



Refrigeration



Farming



Cooking



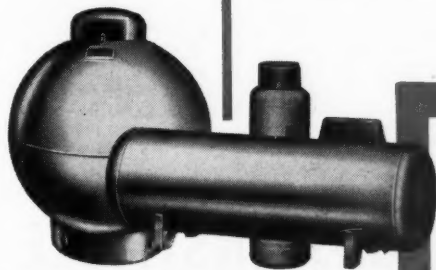
Heating — Lighting

LPG DEALERS render their customers an invaluable service by installing BUEHLER long-lasting Gas Plants with storage large enough for the entire winter season. And it's mighty good business for the dealer too. Time usually spent in rustling up a winter fuel supply and delivering it in dribbles under adverse conditions may now be spent in more profitable solicitation of new business.

Buehler's the Best Buy in LP Gas Plants

The name BUEHLER on a tank has been a symbol of highest quality for over 28 years. Built to meet all safety codes, BUEHLER LP Gas Plants are available NOW in spheres, horizontal tanks and Bottles. Compare Buehler Prices. Also learn how BUEHLER HELPS DEALERS SELL.

Send for catalog and full particulars.



"QUALITY YOU CAN SEE"

BUEHLER

TANK AND WELDING WORKS

5000 Pacific Blvd. • Los Angeles 11, Calif.

Telephone LAfayette 1114

"The Most VALUABLE Money I Ever Spent"

This is what Mr. T. R. Ewing, Vice-President of Butane Gas of Mississippi & Alabama, Inc., says concerning his training in the National LP-Gas Institute:

"I had just returned from the Army . . . Looking for something to start into and hoping to make good, one of my friends told me about the LP-Gas Institute. I went to the next class. I will truthfully say that this was the MOST VALUABLE MONEY that I have spent since starting this operation, which I value at five to ten thousand dollars, on my first year's operation."

BUTANE GAS OF MISS. AND ALA. Inc.

Distributors of Butane Gas, Heating and Cooking Appliances

TUPELO, MISSISSIPPI

May 30, 1947

National LP Gas Institute
Tulsa, Oklahoma

Mr. Parley & Mr. Cownes

Gentlemen:

To whomever this may concern, I would like to pass some good and vital information on to anyone that is interested in making a success in the LP Gas business.

I had just retruned from the Army as thousand others did about a year ago. I was looking for something to make good on. I had just retruned from the Army as thousand others did about a year ago. I was looking for something to make good on.

Photostatic copy of this letter will be furnished on proper application.

YOU TOO CAN HAVE THIS TRAINING

Under a staff of competent instructors and consulting engineers recognized in the industry as outstanding authorities in the LP-Gas field. Now is the time to take advantage of our courses covering installation, operation and maintenance of Liquefied Petroleum Gas equipment.

THE FOLLOWING SUBJECTS ARE COVERED:

1. Theory and general practice.
2. Domestic and Commercial installation.
3. Transportation and Equipment.
4. Safety Rules and Regulations.
5. Economics.
6. Sales Analysis, Promotion and Advertising.

Resident Classes Start First of Every Month. Intensive Four-Month Course Also Available. Home Study Courses Provided for Those Unable to Attend Resident School.

VETERANS! NOW CAN ATTEND UNDER GI BILL OF RIGHTS

MAIL THIS COUPON TODAY
NATIONAL LP-GAS INSTITUTE, Tulsa, Okla.

Please send me complete information regarding:

.....30-day ClassFour-month ClassHome Study

Name.....

Street Address.....City, State.....

Employer or Business.....

UNDERSTANDING ON
KNOWLEDGE STANDS
—KNOWLEDGE
THROUGH PREPARA-
TION EXPANDS—NOW
IS THE TIME TO
PREPARE.

NATIONAL L-P GAS INSTITUTE

1109 S. Main

Tulsa 3, Oklahoma

DALLAS TANK DEALER NOTE

As a fabricator of **ECONOMY LP-Gas Systems**, Dallas Tank Company has a big stake in the **LPG Industry**. Your problems, as well as those of your customers, always shows up here in our shops as changed and redesigned equipment—based on your needs.

There are now larger capacity tanks—both domestic and bulk, in our shops on order to you and being stocked against your future orders. If the trend is toward larger capacity domestic tanks in your territory, or if you intend to install larger bulk tanks on your premises, Dallas Tank Company will be glad to help you select the right equipment for your job. Write today.

**ECONOMY LP SYSTEMS OF
ALL TYPES AND ALL SIZES**

BUY



**DOMESTIC
BULK
SKID
TRUCK**

DALLAS TANK COMPANY, Inc.

P. O. BOX 5387

• RIVERSIDE 5001

• DALLAS 2, TEXAS

OCTOBER — 1947

a HOT item for a COOL PROFIT

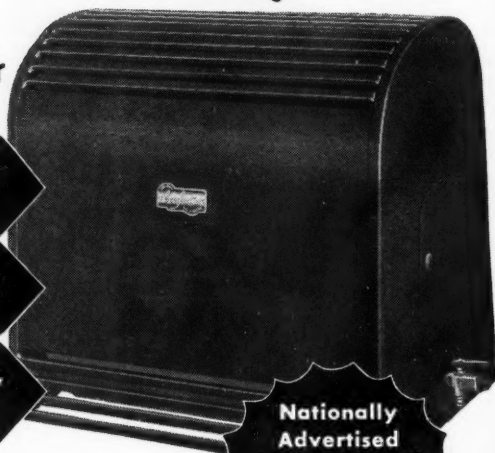
All Comforteer styles are beautifully finished with brown baked enamel.

the new, nationally-advertised space heater that...

★ saves money for your customers!

★ operates safely!

★ provides quick, uniform, portable heat!



Inland Comforteer PORTABLE GAS HEATER

Nationally
Advertised
to the readers of

★ SUNSET

★ HOLLAND'S MAGAZINE

★ WOMAN'S DAY
(Southern Edition)

An unvented, direct-type circulator, AGA-approved for operation with each type of gas: Model 125A — Natural gas; Model 125B — Manufactured gas; Model 125C — Mixed gas; Model 125D — Bottled gas . . .

With your customers, *Comforteer* is ahead on price (gives your customers *more for less*)! . . . on safety! . . . on operating efficiency!

The new Inland *Comforteer* draws cold air from the floor level, heats it, and circulates it uniformly even to the farthest corner.

Your sales of *Comforteer* are quick and final. There is no complicated installation — no chimneys to build, no ducts to install, no service calls to adjust the burner; each model leaves the factory all set for your type of gas.

Take advantage of this timely opportunity to boost your sales and profits, win more satisfied customers. Get the Inland *Comforteer* into your store now. Order by model number direct from the factory. Write today for literature giving prices and terms.

Inland Steel Container Co.

Cortez and Bienville Sts. • New Orleans 19, La.

*Substantially
Built—*

Units shown are factory assembled, to complete the *Comforteer*.



to assure you of satisfied customers

All-steel, spot-welded construction (except burner described below). Made by the Inland Steel Container Co., a firm with a reputation for quality.

The slotted, raised port burner is sturdily made from cast iron. It is scientifically designed to operate without smoke or odor.

An interior baffle helps to assure even heat distribution . . . prevents flammable objects from accidentally falling into the burner.

LETTERS

Gentlemen:

Would you kindly send us charts for figuring Btu's on butane gas to compare with natural gas or manufactured gas.

G.R.A.

California

Burner design can be adapted to LP-Gas use. The following characteristics should be taken into consideration.

	Sp. Grav	Btu/cu. ft.	Cu. ft. air to burn 1 cu. ft. gas
Propane	1.522	2526	23.87
Butane	2.006	3276	31.05

Commercial butane and propane vary from the above and mixtures of the two gases are often used. A burner that will handle butane can be adjusted by the air shutter to burn propane.

"The Bottled Gas Manual" and the "Handbook Butane-Propane Gases" both have considerable data on the combustion characteristics and burner design.—Ed.

Gentlemen:

Could you please let me know the name of the oil, and where I could buy some, used for testing for a leak on cylinder installations?

Soap and water can't be used in very cold weather as it freezes on cylinder connections.

I.G.

New York

Linseed oil has been successfully used for this purpose. Or, you might use with your soap and water some anti-freeze preparation that will produce air bubbles. "Prestone" is a common preparation that might be helpful to you.—Ed.

Gentlemen:

Recently in one of the editions of the BUTANE-PROPANE News, we noted

an advertisement showing the red inflammable tags which are required by the Interstate Commerce Commission when hauling LP-Gas in 100 pound bottles on the highway.

We should like to place an order for some of these tags and would you please tell us the names of firms having this service.

E.R.

Illinois

I can refer you to the Eastman Tag & Label Co., 548 Fourth St., San Francisco.—Ed.

Gentlemen:

Can you provide me with a full and detailed description of equipment needed and the economics of distance-vs-size of load? I am wondering if it would pay to haul propane as far as 400 miles to supply a string of small towns (filling cylinders at local depots which would be run by local service-appliance dealer personnel) with the use of a "bottling plant on wheels" but not the largest size truck tanks usually used in long distance hauling.

Could a moderate size truck tank be used, economically, for that distance? Has anyone compiled cost figures on hauling, relating the miles to the hauling capacity, and attempting to ascertain (unit cost) feasibilities?

A.A.G.

New York

Thank you for your letter of August 11th and your check for \$4.00 for a copy of our "Bottled Gas Manual." This is being shipped you.

In reference to your question regarding a "bottling plant on wheels," we can say that

hauling by limit load highway truck and trailer units is competitive with rail transport in the West for distances as high as 400 miles where the highways are open practically year-round and average speeds of about 45 miles per hour can be obtained.

Hauling in small lots in the East on roads with heavy traffic and severe winter conditions would not be competitive with bulk rail shipments.

An operation as you describe might be competitive with freight on cylinders shipped to and from the refinery for filling, but would be vulnerable to a change in operation where the cylinders were filled at bulk plants fairly close to the points of use and distributed from there by truck.—Ed.

Gentlemen:

Can you advise us where we can secure a good thermostat and pilot light for an LP-Gas sidearm water heater.

Any information you can give us regarding the above will be greatly appreciated.

E.B.

New Mexico

The best way for you to obtain these products is to order them through the manufacturer of your sidearm water heater or the manufacturer of your automatic water heater. There does not seem to be a thermostat and pilot light made specifically for a sidearm water heater, but the regular ones can be adapted for such use.—Ed.

Gentlemen:

Would you please give me your opinion or any idea you may have on the problem that is before me?

I have been in the gas industry for seven years, but this is the first time I have had a problem of this nature. One of our customers has a butane hot air blower type furnace. It is equipped with all safety controls available and in proper order, but after several years' satisfactory service they have definitely made up their minds they want a gas escape vent from basement floor level extended to outside outlet on a down grade to re-

lease any gas that might escape and prevent explosions that might occur in basement. Since basement floor level is below outside ground level, it involves lots of labor and time. Any suggestions you may have will be greatly appreciated.

I have not missed a single issue of BUTANE-PROPANE News since 1939.

L.C.

Colorado

Your customer's request is not an unreasonable one.

It is good practice, regardless of the use of safety devices, to provide bottom ventilation for appliances using LP-Gas when located in a place where an accumulation of gas is possible, due to a failure of a safety device.

This may appear to be an unnecessary precaution, but we do not think so.—Ed.

Gentlemen:

Many of our distributors and dealers ask us to give them the Btu content and other characteristics of gases carrying trade names, such as: "Philgas," "Pyrofax," "Essotane," "Green's Fuel," etc.

Could you tell us whether you have a list of the various trade name gases and the specifications of each gas?

T.D.B.

Kentucky

This information is not available. In the first place, there are literally hundreds of such terms, coined by the individual dealers themselves, and applying not to the characteristics of the gas but to their various ideas of what trade names might be.

The burning characteristics from pure butane to pure propane are so nearly identical that the AGA Testing Laboratories make no official distinction.

The number of Btu's in one pound of propane are 21,690; in one pound of butane, 21,340. The proportion of butane and propane in deliveries made by suppliers to dealers differs with the season and the supply on hand at time shipment is made. Of course, every dealer receives memoranda of the specifications of the particular shipment being made to him but they are not uniform from time to time, except in rare instances where a given specification is definitely demanded.

—Ed.

Gentlemen:

We would like to have some information on the use of propane in welding.

Can propane be used in all kinds of welding and cutting?

Is an oxygen tank necessary?

Are special type hoses, torches, and tips required?

W.M.B.

Tennessee

Propane is not suitable for welding steel. It is suitable for brazing operations and welding aluminum. It is also better than acetylene for steel cutting.

It is used similarly to acetylene and requires the same type of regulator and torches and an oxygen tank is necessary.

Special tips made for propane use must be used on the torches for satisfactory results.—Ed.

Gentlemen:

A local firm advertises that \$12.50 coal is cheaper than LP-Gas. Would appreciate your figuring heat losses and fuel cost, figuring on a 60-40 mixture of butane and propane at 14c per gal.; also, information concerning time involved in handling coal, ashes, redecorating, etc.

This will be a great service to us and will help us in combating such an ad.

W.A.S.

Alabama

Your coal competitor has a good advertising man. The statements made are essentially correct, but he has not informed his readers of the relative efficiency of the various fuels.

A good example of gas versus coal cost has been worked out in the chapter on coal as a competitive fuel in "The Bottled Gas Manual." From this, it is shown that propane could sell at 35c per pound for small users and down as low as 5.3c per pound for average use and still be competitive to coal at \$12.50 per ton, because users of small amounts of fuel would have a large coal waste in starting fires. This would be equivalent to a range of \$2.65 to \$2.56 per gallon of your fuel.

Based on the lower figure, which is the fuel requirement for an average family for

cooking and water heating, coal would have to sell for about \$6 per ton to be competitive with your fuel at 14c per gallon.

For space heating, coal is more competitive if a furnace is used. A modern automatic coal furnace is capable of efficiency as high as 60% and gas will run about 70%. At your price of fuel, you are going to have trouble getting the heating load unless your climate is such that intermittent heating is desirable. In that case, the saving in gas due to ability to shut off the fuel at once often will overcome a low coal price.—Ed.

Gentlemen:

We thought you might be in a position to give us some information relative to the burning of propane gas.

We have recently had the experience of a customer claiming damage to the health of his family because of the formation of carbon monoxide through the burning of propane gas.

With the help of scientific testing equipment we established the fact that there was no carbon monoxide dispelled from the unit in question. We have tried to find information as to what gases are formed or dispelled in the process of burning propane gas but have been unable to get information on this subject. Any information you might have about this subject would be greatly appreciated.

J.M.H.

Michigan

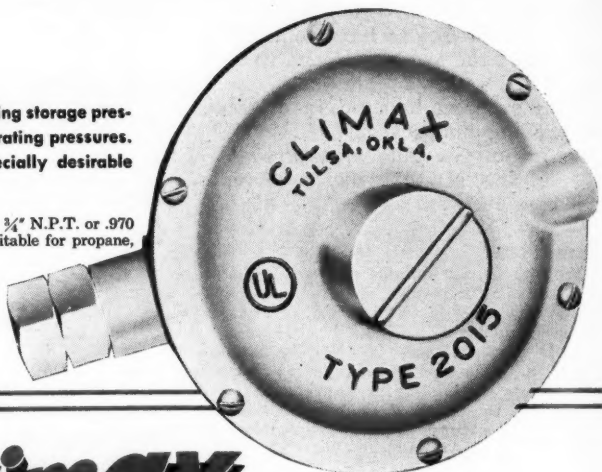
We can refer you to page 32 of the third edition of our "Handbook Butane-Propane Gases" where will be found information concerning the products of combustion of propane as well as the hydrocarbons found in natural gas.

One cubic foot of propane requires 23.86 cubic feet of air to complete combustion and forms 3.0 cubic feet of carbon dioxide, 4 cubic feet of water vapor and 18.86 cubic feet of nitrogen, none of which are harmful to humans.—Ed.

● BUTANE-PROPANE News welcomes letters from our readers, but it must be understood that this magazine does not necessarily concur in opinions expressed.—Editor.

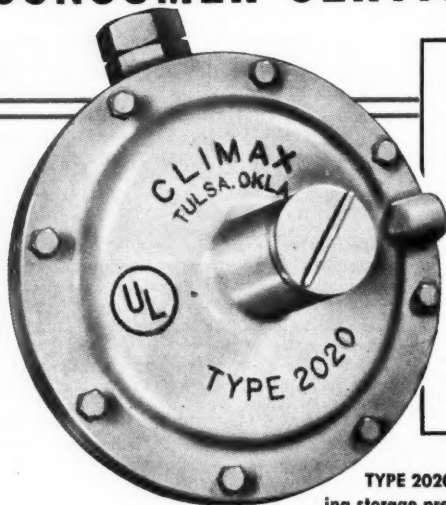
TYPE 2015—for reducing storage pressure to appliance operating pressures. Compact design especially desirable for use with bottles.

Can be furnished with $\frac{1}{2}$ " N.P.T., $\frac{3}{4}$ " N.P.T. or .970 P.O.L. inlet connection. Orifice suitable for propane, butane or propane-butane mixtures. Regulator is completely tested and set at factory for standard operating conditions. Send for Bulletin 504.



CLIMAX L.P.G.

CONSUMER SERVICE REGULATORS



TYPE 2020—for reducing storage pressure to that utilized in distribution system.

Especially adaptable for aboveground and underground storage tanks where greater regulator capacity is desired. Can be furnished with $\frac{1}{2}$ " N.P.T., $\frac{3}{4}$ " N.P.T. or .970 P.O.L. inlet connection. Available with orifices for propane, butane and propane-butane mixtures. Regulator is completely tested and set at factory for standard operating conditions. Send for Bulletin 503.

SAFE Approved and listed by Underwriters' Laboratories Re-examination Service. Tested to withstand pressures in excess of 300 p.s.i.

DEPENDABLE Designed by engineers with years of experience in the field of automatic controls where performance is essential.

PRECISION BUILT Special zinc alloy bodies and precision machined internal parts made by craftsmen skilled in the manufacture of regulators and control equipment.

PROMPT DELIVERIES now being made. Bulletins give complete specifications, construction and performance data. Write for copies. Type 2020—Bulletin 503. Type 2015—Bulletin 504.



CLIMAX INDUSTRIES, INC.

L. P. G. DIVISION
15 North Cincinnati Avenue
TULSA, OKLAHOMA

COMMENT

A NEW load builder is making its debut in the liquefied petroleum gas industry. It is the tobacco curer. Experiments have led to operating installations that are working out with definite success. LP-Gas is better in every way than other fuels used in the past and there is little doubt but what dealers in the South can look forward to equipping most of the tobacco barns in their territories.

The first article upon the subject of tobacco curing with LP-Gas appears in this issue. Others will follow as developments occur.

The National Butane-Propane Association was convening as this issue goes to press. The full story will be written for November.

Some dealers still think they can carry on alone, but the trend is toward unification of effort in fighting for industry advancement and in opposing individual bad practices.

A good illustration of the value of group action occurred in New Mexico recently. The legislature transferred the jurisdiction of the LP-Gas industry to the New Mexico Public Service Commission and added some new regulations that, if enforced, would harmfully restrict dealer operations in that state.

Immediately a meeting of the New Mexico LP-Gas Association was called and 150 industry members attended and entered their protests.

By presenting a unified front and enlightening the Public Service Com-

mission upon practices common in our industry, it is now believed that sufficient influence can be brought to bear to modify the present stringent laws at next winter's session of the legislature.

The tank car situation improves. Cars being built from July to December are expected to total 200 per month in number. That will make the total supply in LP-Gas service 4546 cars by the end of the year.

The WAA has sold 422 government owned high pressure tank cars to veterans with the proviso that they remain in LP-Gas service another year. The RFC is scheduled to release 200 104AW type cars, subject to ICC approval.

However, the anticipated demand increase may be 40% above last year, still leaving a shortage of an estimated 1500 cars to serve the industry through the coming winter.

In rural territories where the electrical industry has made its hardest fight for business, the liquefied petroleum gas industry has shown more than 600% increase in gas cooking customers in the past 10 years and now has as many off the gas mains using LP-Gas for cooking as the electrical industry has homes using electricity for cooking in the entire nation, including cities.

Fire Prevention Week is Oct. 5-11. Make it 52 weeks in the LP-Gas industry instead of one!

By Ed.



K. H. DICKSON
Guest Editor for October

Working Together

By K. H. DICKSON

President Missouri LP-Gas Association,
Vice President and General Manager Uregas Service, Inc.,
Moberly, Mo.

WE here in Missouri were not the first to learn, and there are many operators in other states yet to learn, that a strong state LP-Gas association is one of the soundest investments that can be made for the future betterment of their individual businesses.

Only in recent years could any of us refer to our competitor in a normal tone of voice. Getting together at our state and national association meetings and discussing our common problems has undoubtedly accomplished more than any other one thing in getting us to "work together."

Most all of us looking forward to a prosperous future have unbalanced inventories. If each one of us goes his own individual way, they will continue to be unbalanced. However, if we get together with our neighbors and work together, we can help to alleviate this condition. It may be that you cannot get immediate results. Over a year ago one of our neighbors helped us move an overstocked item. We were not in a position to reciprocate until last week when we bought his overstock of another item.

This is only one case where we have both profited not only by turning frozen capital but also by a mutual understanding of each other's problems.

So, let's all attempt to become better associates. Join, support, and attend your state and national association meetings and discuss your problems. More of us will profit by "working together."



K-10 SERIES

UNSURPASSED ELECTRO-MAGNETIC LEVER VALVES



FOR CONTROLLING air, water, gas, steam, light and heavy oils, and refrigerants, etc. Suitable for pressures up to 1,000 pounds and temperatures up to 400° F.

Internal valve assembly can be removed for cleaning and inspection if necessary. Two-wire—A.C. or D.C.—current failure—packless construction—bronze body—stainless steel and bronze internal parts—soft seats available.

SIX TIMES THE POWER of ordinary solenoid valves. This feature assures high seating pressure and overcomes the effect of viscous fluids, such as heavy fuel oil. Adequate power of the solenoid insures positive operation. Available in normally closed or open types.

FOR COMPLETE SPECIFICATIONS on temperature, pressure and flow controls write for new 1946 Catalog 52C.

8-1

GENERAL
801 ALLEN AVENUE



CONTROLS
GLENDALE 1, CALIF.

FACTORY BRANCHES: Philadelphia, Atlanta, Boston, Chicago, Dallas, Kansas City, New York, Denver, St. Louis, St. Paul, Seattle, San Francisco, Salt Lake City, Portland, Ore., Minneapolis, St. Paul, Wis., and other locations.

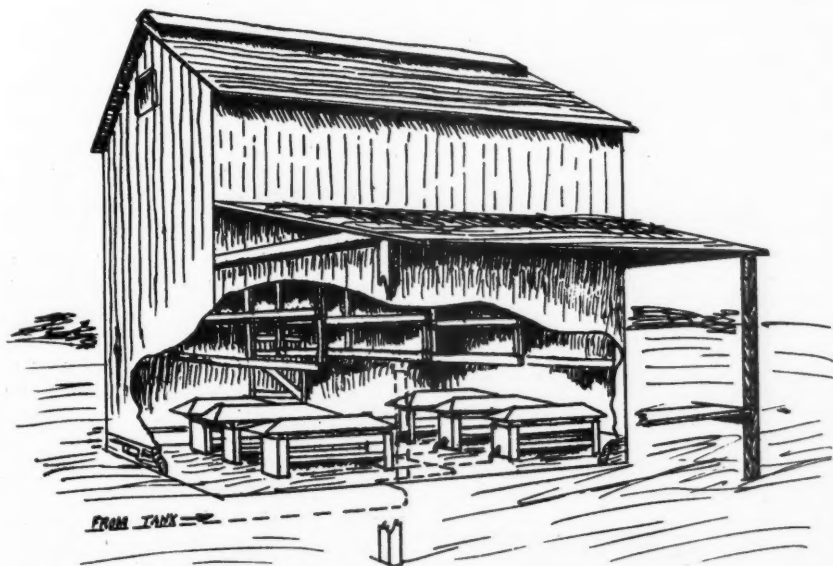
LP-Gas Tobacco Curer Opens Big Load to Southern Dealers

CURING tobacco with LP-Gas? Yes, it can be done and is being done today by the use of a unit worked out and tested by a Green's Fuel dealer in Whiteville, Columbus county, N. C. It is the fifth largest tobacco growing county in North Carolina.

This curer, developed by H. M. and W. J. Dickens, of the Whiteville Gas Co., and N. C. White, a local tobacco grower with years of

curer experience, has been in the experimental stage for two years. There are a few test units installed this year, and the curer will be on the market before the 1948 curing season, it is promised.

This LP-Gas curer in all its simplicity has all the features of the ideal curer for tobacco, according to the developers. It has a hood made of galvanized sheet metal with no flues. It has a dead air



Tobacco barn with curer equipment at work.

space in the top of the heat spreader, preventing the top from getting hot enough to be a fire hazard and prevents setting the green in tobacco that hangs above hood and gives even heat over entire barn. It has the flame protector on each side to prevent drafts from greatly affecting the flame.

The fire hazard that is so dreaded by tobacco farmers during curing season is practically eliminated by the fact that no part of the heat spreader gets hot enough to ignite the falling dry leaves of tobacco. This is done by an extra layer of sheet metal above the flame, leaving room for air circulation beneath top of hood. The tobacco farmers acknowledge that curing is the most important process of growing the tobacco.

This curer also can be used for curing of sweet potatoes, corn and for chicken brooders.

The hood is so constructed that a dry leaf cannot fall into the



Installing new curer unit in tobacco barn.

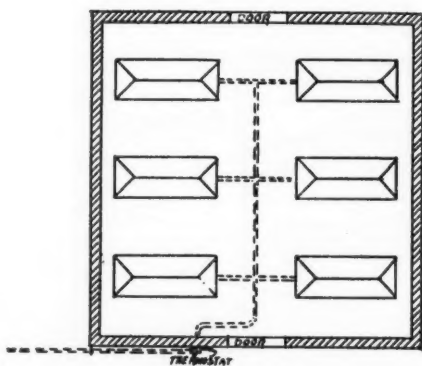
flame to cause the fire to leap into the tobacco.

The burner is a simply constructed drilled pipe burner extending the full length of the hood and fastened to one end. It extends through front end one-half inch for air mixer and valve. It also has a small pilot burner attached to the main burner which is used for coloring of tobacco. There are valves on each burner, which allow manual control of each or a single thermostat on the outside of the barn that will control all burners alike, except on the pilot burner, with a minimum and maximum flame as needed.

These units can be sold to compete with any oil curers of the better type and can be operated just as economically.

The number of units installed in a tobacco barn depends on the size of the barn. A 20x20 barn would require eight units, which would give excess heat if needed. A 16x16 would require six units. Smaller barns may use only four units.

Tobacco curing with gas is not only new; it is the most revolu-



Looking down upon the installation, showing piping and door outlets.

tionary improvement ever worked out in the curing field.

Liquefied petroleum gas used for curing tobacco gives the much needed control ability that other fuels do not give. It gives ease of operation superior to other fuels. The even flow of heat that many tobacco farmers have dreamed about can be an actuality when using

LP-Gas for curing the tobacco. This even flow of heat actually reduces the number of curing hours from 15 to 18 hours per barn and makes better curing possible. The large number of local farmers who have closely observed the operation and results of this LP-Gas curer are highly impressed with the satisfactory results.

John M. Robinson Re-elected President At Second NBPA Convention

THE second annual convention and trade show of the National Butane-Propane Association played to hundreds of dealers and distributors who traveled to St. Louis from all sections of the country to see new equipment and appliances and to hear important speakers discuss problems of vital concern to the LP-Gas industry. The meeting extended over the three days of Sept. 15-17 in the Jefferson hotel.

Engineered by E. E. Hadlick, executive vice president, the trade exhibits overflowed the allotted space and half a dozen late-comers had to display their products on the adjoining mezzanine.

John M. Robinson, Butane Gas Co., Woodworth, La., was re-elected president of the association. Other new officers:

First Vice President

John L. Locke, Northwestern Blau-gas Co., St. Paul.

Second Vice President

R. N. Short, Red Devil Butane Gas Co., Franklin, Ky.

Executive Vice President

E. E. Hadlick (re-elected).

Secretary

W. A. Moey.

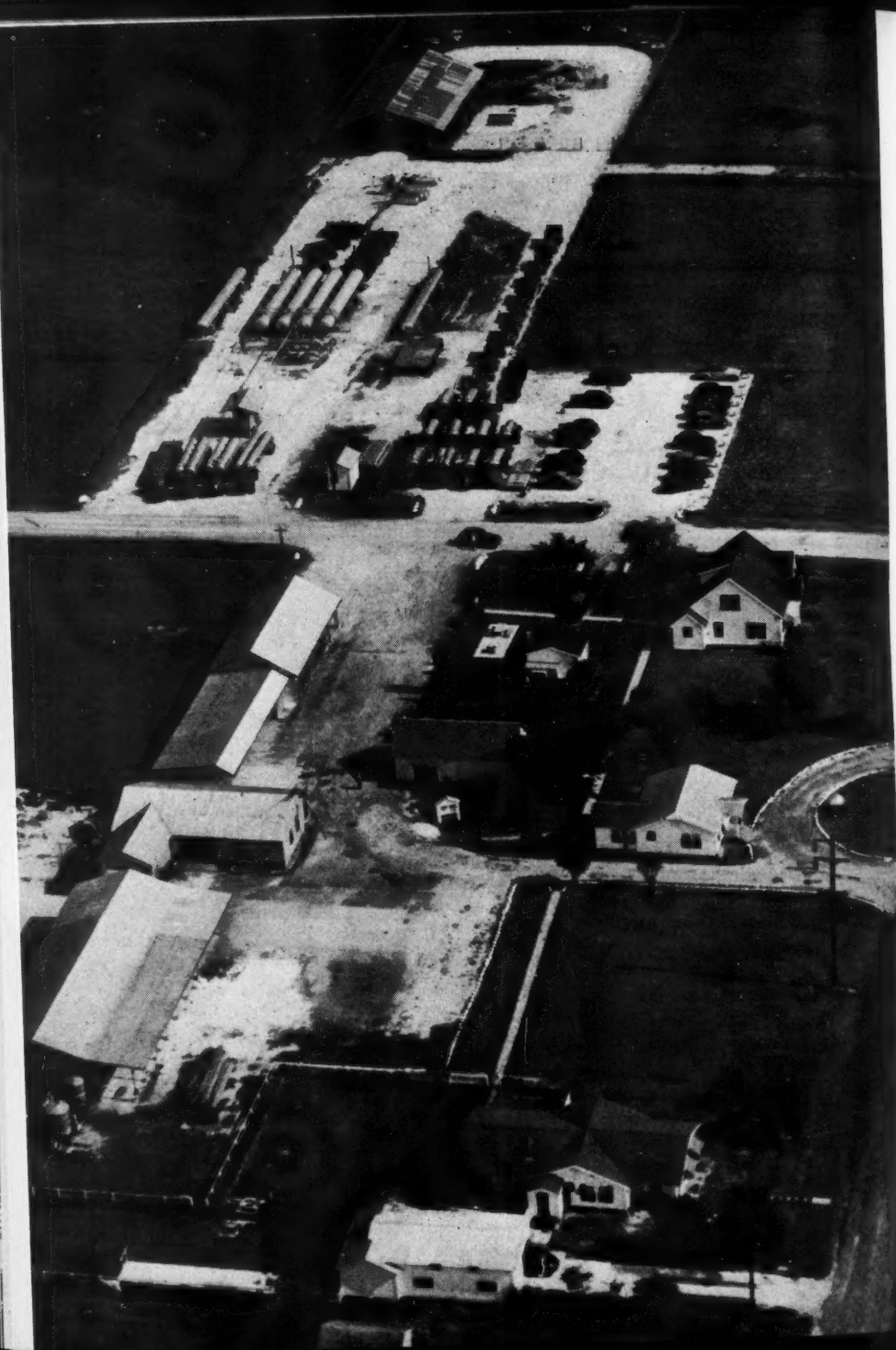
Treasurer

Harry H. Torbit, Union Gas & Equipment Corp., Pueblo, Colo. (re-elected).

A paper delivered at the St. Louis convention by W. W. McCarty, covering the use of business forms for industry operators, is printed in full in this issue, beginning on Page 121. The complete convention story will appear in next month's issue of **BUTANE-PROPANE News**.



E. E. HADLICK



Simplified Accounting Methods

Show Dealers How to Figure Costs

By BOB FARSON

THE liquefied petroleum gas industry has had a challenge. Costs of operation and methods of determining if each individual phase of operation is a paying proposition and, if not, how to remedy the situation, are immediate concerns of every dealer.

Being a comparatively new industry with little past performance and still less in the way of standard practices, forms, procedures, and so forth, the majority of the successful dealers have had to work out entirely separate (and many times original) systems of their own, mainly through trial and error.

A successful development, in the above category, is the Winton Automatic Gas Company of Beaumont, Texas. This company was established in 1935 by J. H. Win-



J. H. WINTON

ton, president, and Mrs. J. H. Winton, secretary and treasurer. The original executive personnel is now augmented by Paul H. Bohmfalk, vice president and assistant manager, and Mathew Nosek, accountant and bookkeeper.

Mr. Winton attributes much of the success of his business to a complete, yet simplified, bookkeeping procedure, a set of forms applying to all phases of operation, and an eagle eye on all costs.

"The man in charge of the office and these procedures," he says, "should be capable of earning and receiving one of the top salaries paid by the firm."

Through 12 years of experience, trial-and-error experimentation, and adoption of standard bookkeeping procedure, the Winton Co. has arrived at a system that gives an immediate check of every operation, shows if it is on a profitable basis, and what has to be done to put it in the black.

In the first place, there are no verbal operations at Winton Co. A simple form is provided for each job. In the gas truck salesman's office a large board is provided

Left: Air view of the Winton plant, showing bulk storage, filling plant, offices and trucks.

The final form made out by each gas truck salesman is a recap of the day's operation for the purpose of checking in his receipts and accounting for the fuel delivered from his truck. This form is the gas delivery report as shown in Form 3. This form shows the name of each customer called on; the number of gallons checked in his tank; the amount of fuel sold where delivery is made, the cash

INVOICE	
Winton Automatic Gas Co.	
P. O. Box 2707	BEAUMONT, TEXAS
Sold To <u>John Deere</u>	
Address <u>Box 7 Box 214-Bruch.</u>	
System <u>150</u> Capacity <u>135</u> Date <u>7/24/1942</u>	
<u>64</u> Gallons Automatic Gas Fuel <u>6.40</u>	
Tank Measurement	
After filling	Inches <u>135</u> Gallons
Before filling	Inches <u>71</u> Gallons
I hereby certify that I have carefully measured fuel in	
system and placed	<u>64</u> Gallons fuel in system
this date.	
<u>A. Adams</u> Driver	
If Paid by _____	
The amount will be \$ <u>Cash</u>	

Form 2. Customer's invoice. Carbon copies are made for driver and office.

collected or amount charged, and the collections made for past deliveries of fuel, equipment or services. The top of the report also gives complete data on the truck; amount of fuel taken out in the morning, amount sold, and amount returned, and so forth.

The information shown on the above forms is later transmitted from the office copies to a complete customers' gas record file (Kardex type). The office, therefore, has a complete condition report on every customer for quick reference at all times. A separate correspondence-type file folder is maintained on each customer in the office to hold copies of invoices, installation sheets, and correspondence.

The next phase of operation is installation and service calls. For new installations Form 4 is used, and for service calls a similar but simplified form is applied. The front of this form is filled out by the office for the service salesman and put in an envelope along with requisitions needed to obtain necessary equipment from the warehouse, invoices, or any financing papers that require the customer's signature. It is ready for the service salesman to do the job.

Each installation and service truck constantly carries a complete stock of standard equipment needed on the job. Upon the truck's return at night, the installation salesman fills in the back of the installation

STRAPPING TABLE FOR AUTOMATIC GAS SYSTEMS						
Depth, in.	SIZE					
	111	132	200	222	250	300
	gals.	gals.	gals.	gals.	gals.	gals.
1	1	2	2	2	2.6	4.0
2	4	6	4	6	7.2	11.3
3	7	11	10	12	13.0	20.5
4	11	16	16	18	20.4	31.9
5	16	23	22	24	27.9	43.9
6	21	30	29	33	36.3	57.4
7	26	37	37	40	44.9	71.8
8	31	45	45	49	55.2	87.2
9	37	53	54	58	65.4	103.4
10	43	61	62	67	75.9	120.3
11	50	69	71	77	86.3	137.4
12	56	78	80	87	97.5	154.8
13	63	87	89	96	108.4	172.7
14	69	95	98	107	119.7	192.3
15	75	103	107	116	130.7	210.8
16	81	111	117	127	141.9	230.0
17	86	119	126	137	153.1	248.3
18	92	126	134	147	164.3	270.4
19	97	133	143	157		
20	101	139	152	166		
21			160	175		
22			169	184		
23			176	192		
24			183	200		
25			190	208		
26			195	214		

Form 2 (reverse side). "Strapping" table to aid customer in determining amount of gas in his tank.

INSTALLATION SHEET

NAME *S. S. Samuel* DATE *7/28/47*
 MAILING ADDRESS *Rt 6 Box #18 - Beaumont, Tex.*
 DELIVERY DIRECTIONS *Go out of Beaumont Rd to Crumple's Dairy turn left - second house on left.*

SIZE TANK *500* NO OF OPENINGS *3* APPLIANCES TO BE INSTALLED

RANGE

Conservation

WATER HEATER

ROOM HEATER

CHANGEOVER

EXTRA PLUMBING

REMARKS

Leave the in line as directed for future extension of line to wash house

S. S. Samuel

Form 4. This order is made out by the office for the installation man.

TIME LEFT OFFICE *8:30 A. M.* P. M. TIME RETURNED *4:00 P. M.*
 NO. MEN ON JOB *3* NO. HOURS ON JOB *2 1/2*

450 GALLONS BUTANE PUT IN TANK AT TIME OF INSTALLATION.

FITTINGS USED.

44 FT. GALV. 1" PIPE

12 FT. " 3/4" PIPE

16 FT. " 1/2" PIPE

FT. " 3/4" PIPE

FT. " 1" PIPE

1 1" UNION

1 3/4" ELB

4 1" ELB

2 3/4" ELB

6 1/2" ELB

3 1/2" TEE

1 3/4" ELB

1 1 1/4" ELB

1 3/4" ELB

2 1/2" ELB

2 3/4" ELB

2 1/2" ELB

2 3/4" ELB

2 1/2" ELB

2 3/4" ELB

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2 3/4" ELB

2 1/2" ELB

2 3/4" ELB

2 1/2" ELB

2 3/4" ELB

WAS JOB COMPLETED? *Yes*
 REMARKS *See left at construction site as directed for adding pipe later*

DATE *7/29/47*

INSTALLATION FOREMAN

J. H. James

Form 4 (reverse side). Here is shown list of parts and equipment used on the installation.

01240

PHONE 37

Beaumont, Texas. _____ 194_____

Sold To _____

Address _____

PLEASE ENTER MY/OUR ORDER FOR

QUAN.	DESCRIPTION	CASH PRICE
INTEREST FOR () MONTHS		
TOTAL TIME PRICE		
LESS DOWN PAYMENT		
TOTAL TIME BALANCE		

Which I Hereby Purchase, and Which Is To Be Installed By You At

STREET AND NO. CITY STATE

On or About _____ 194_____ and for which I/We Agree To Pay

The Sum Of _____ DOLLARS (\$ _____)

Of Which Amount _____ DOLLARS (\$ _____)

Is Paid Herewith and the Remainder in Monthly Installments, Each of Not Less Than

_____ (\$_____)

Beginning () Days After Date of Contract.

This order is subject to acceptance by the seller, and when so accepted constitutes a binding contract which covers all agreements, expressed or implied, with exception of the agreements embodied in the papers which are to be executed by the Purchaser and Seller, when the said property is purchased on deferred payment plan.

Signed _____ (SEAL)

Witness _____

Accepted By _____ SALESMAN
WINTON AUTOMATIC GAS CO. By _____

MAKE ALL CHECKS PAYABLE TO WINTON AUTOMATIC GAS CO.

Form 5. Combination purchase order and customer promissory note.

job is done; a mail order form, and, very important, the original purchase order as shown in Form 5. This incorporates a promissory note for the amount of the transaction.

Thus, it will be seen that an exact record of day-by-day sales, installations and servicing operations, transferred to the company's books, shows the status of every account and requires but a minimum of time and effort to take off a trial balance sheet which will reveal the cash received during any given period and the current bills receivable. Monthly or annual balancing against inventories, equipment investments and operating expenses determines the condition of the business.

Keep Eye on Costs

Most dealer operations by necessity vary, but many of the proven systems could be adopted advantageously by many dealers in conjunction with present practices. There is no doubt that one important way to improve efficiency, management, and results is to keep an eagle eye on all costs.

The Winton organization has grown in 12 years to a total average complement of about 55 full-time employees servicing over 3000 domestic LP-Gas users within a radius of 50 miles of Beaumont in both Texas and Louisiana. The company services these customers with 12 1100 gallon gas delivery trucks (10 on routes and two always held in reserve), and five service trucks. Nearly 100,000 gal-

lons of both butane and propane storage are a part of the Winton physical facilities and this storage is serviced by three 4000 gallon transports. Mr. Winton is fortunate enough to be close to his source of fuel supply, eliminating the necessity of other forms of transportation. Present plans call for increasing present storage facilities to more than double their present capacity in the next 12 to 18 months.

Maintenance Facilities

The Winton Co. maintains all its own repair, washing, steam cleaning, greasing, and servicing facilities for its rolling stock and operates its own complete paint shop and repair welding department. All equipment is completely overhauled, painted and reworked each year after the close of the winter gas season. At this time each truck tank is removed, steamed out, and completely checked.

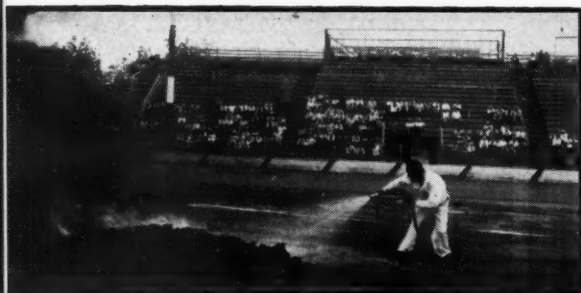
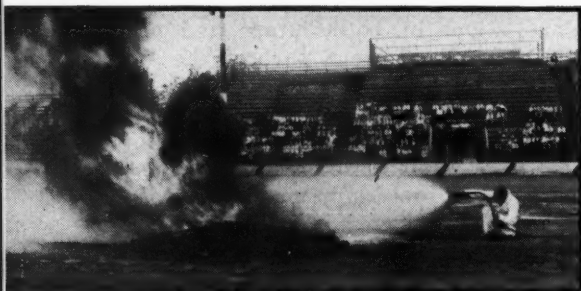
Mr. Winton does not employ any direct salesmen, but sees that every man in his organization is a salesman in his own territory. Gas truck salesmen (as Mr. Winton prefers to call them rather than drivers), installation, and repair salesmen all work on a basic salary plus a commission for the gas sold and a 5% commission on all appliances, systems, and so forth, sold by them, whether as original business or through leads supplied by the office. This incentive system has more than proved its worth in providing the men with a good year-round income, and the company with constantly increasing volume.

Fresno Fire Demonstration

At Fresno, Calif., in August, the LPGA followed a district convention with a field demonstration which showed how to control fires.

First three pictures at left: C. H. Van Marter knocks down and eventually extinguishes a heavy diesel oil fire in a pit with water fog which protected him as well as extinguished the fire.

Below: C. H. Van Marter, safety engineer for the Union Oil Co., presented the fire fighting demonstration at Fresno.



Below (right): John Knox Smith, safety engineer, LPGA, talks to W. E. Snowden, Snowden Chemical Co., Modesto, distributors of "Dugas." Mr. Snowden and his crew helped in the presentation of the demonstration, furnishing equipment and knocking out many of the fires.



Figure Heat Losses Accurately to Determine Size of Equipment

By E. G. JOHNSON

The Coleman Co., Inc., Wichita, Kansas

THE importance of figuring heat losses* cannot be over emphasized. It is just as important to figure the heating requirements of a building in order to select the right size heating equipment as it is for a shoe salesman to measure your feet before he sells you a new pair of shoes!

In what some folks choose to call the "good old days" people were willing to have only one or two rooms of their homes heated to comfortable temperatures. This made the job of the heating contractor very easy. It made little or no difference whether the heating plant was greatly oversized or undersized. Now the home owner has been educated to demand heating installations which will always provide good indoor comfort. Automatic controls cannot give



E. G. JOHNSON

good results unless the heating plant size is about right.

The use of ceiling and sidewall insulation, weatherstripping, and storm sash makes it impossible for a man to merely look at a house and guess its heating load. Before the use of insulating materials houses were built with only a few types of materials and a man with considerable experience could look at the house and make a fairly close guess as to its heating requirements. Under present construction methods a house which is well weatherproofed may have only one-third the heating needs as a house which is leaky, poorly built, and without insulation.

For your own protection you should use a reasonably accurate method of figuring heat losses. In the case of competition if you try to sell equipment which is much too large for the job your smart competitor who has figured the heat loss correctly will be recommending smaller sized units than you—and, of course, he will be able to sell the job at a lower price. Also, oversized jobs are hard to control and result in long "off" periods of the burner and consequent air stratification in the room.

On the other hand, if you are

*Talk prepared for presentation at LP-Gas Appliance Short Course, University of Tulsa, Sept. 3-5, 1947.

specifying units which are too small they will not be able to deliver a sufficient amount of heat during cold weather. Then you will be plagued with service calls and you will wish that you had never even heard of the job.

The only way to avoid these situations is to calculate the heat loss in terms of British thermal units—called the “Btu” method, or basic method.

The Coleman sales engineering department uses and recommends the basic method of calculating heat losses as set up by the American Society of Heating and Ventilating Engineers. This method considers each source of heat loss individually in order to obtain the exact heat loss under the design conditions. However, we also recognize the need of a shorter, and yet reasonably accurate, method to use for the ordinary “run of the mill” small jobs with which we deal constantly.

Basic Method Is Short-Cut

The basic method involves some rather tedious arithmetic which the average dealer or salesman will not take the time and effort to do. For this reason we have developed the Coleman condensed method calculating heat losses. While it is based on fundamentals, we have condensed the procedure so simply, we can tell the whole story on one page.

All too often, heating systems are sold and installed improperly because the dealer does not feel that he can take the necessary time to figure the heat loss. So he “guess-timates” the heat loss, or uses some short cut method that may be more wrong than his guess.

Many of the short cuts in common use were developed in the days of coal-fired steam and gravity heating systems where accuracy was not required to any great extent.

The Coleman condensed method is not a short cut in the usual sense, but as the name suggests, it is simply a condensed form of the basic method. As in the basic method each individual source of heat loss is considered separately and the same line of logical reasoning can be followed.

How Heat Is Lost

Heat is lost from a warm building through all of its surfaces exposed to a lower temperature. This loss is called the “transmission loss” and represents the amount of heat that is lost from the building by means of the indoor heat being transmitted from the warm inside—particle to particle—to the cold outside.

Transmission losses take place through outside walls, floors, ceilings, and partitions separating heated and unheated rooms. Heat is also lost due to the wind blowing into the house through door and window cracks. The amount of heat required to heat this cold air is called the “infiltration loss” or air leakage loss. More about this later.

The basic method of calculating a heat loss is based on the formula $H = A \times td \times “U”$. This is a shorthand way of saying that the heat loss (H) in Btu's per hour through a given surface is equal to the number of square feet (A) multiplied by the temperature difference (td) multiplied by the heat loss factor (“U”). The factor “U”

represents the amount of heat escaping through one square foot of building structure in one hour's time for each degree of temperature difference and is usually a 2-place decimal.

The "Heat Loss Factor" used in the Coleman condensed method is derived from the basic method by simply multiplying "U" by 100. In other words, it represents the heat loss where there is 100° temperature difference, which occurs in the coldest sections of the United States when it gets down to 30° below zero with 70° inside. A correction factor for milder climates will be discussed later.

Furthermore, our factors become whole numbers. We eliminate the decimals! In the case of floors, ceilings, and other surfaces not exposed to the extreme outside temperature we only multiply by the actual temperature difference when it is 30° below zero outside. While our condensed method tables only list 11 different types of wall constructions, they have been carefully selected to cover in a general way almost all types of construction in common use. For unusual types of construction we can refer back to the basic method "U" factor.

Must Understand Construction

Before a heat loss calculation can be made the estimator must be able to identify the main types of building construction. The main purpose of a house or building is to provide the occupants with a weatherproof enclosure which will be dry, wind-proof and easy to heat in winter. Many different materials are used in building a house and



the rate of heat transfer or heat loss varies with each material. One frequent source of error is the failure of the estimator to select the correct heat loss factor. Therefore, it is obvious that the estimator must have more than a nodding acquaintance with the fundamentals of building construction and its affects on the heating plant.

Most buildings will fall into three general types as far as wall construction is concerned. One popular type house in the low-cost field at present is the concrete, or cinder block, house. This is the solid masonry type of building. Of course, brick and stone are also used. They all have close to the same rate of heat transmission.

Quite often the plaster is applied directly to the inside surface of the brick or cinder block. This type of wall is identified on line 2a in Table 1, "Heat Loss Factors." Solid masonry buildings require more heat than most other types of buildings. Quite often, to make a warmer building an air space is left be-

**TABLE 1. "CONDENSED METHOD"
HEAT LOSS FACTORS***

1. Windows and Doors	
	<i>Multiply sq. ft. by:</i>
a. Without storm sash	113
b. With storm sash	75
2. Outside Walls (Net)	
	<i>Multiply sq. ft. by:</i>
a. SOLID MASONRY — (Brick, stone, etc.) with plaster applied direct to inside surface of masonry wall.	45
b. AVG. FRAME —Brick Veneer—Wood Siding—Shingles or Stucco—with sheathing, bldg. paper, studs, lath and plaster	30
c. FURRED MASONRY —(Same as 2a with air space between plaster and masonry wall)	
d. INSULATED FRAME —Same as 2b—with 1" or less insulation board or blanket	20
e. HEAVILY INSULATED —Same as 2b—with 2" or more insulation	10
3. Ceilings and Inside Walls	
	<i>Multiply sq. ft. by:</i>
a. CEILING —Plaster on lath or wall-board. No floor above—Attic not vented	34
b. Same as 3a—with 2" or more insulation	12
c. CEILING of first floor room below unheated room on second floor	17
d. INSIDE WALL adjacent unheated room	
4. Floors	
	<i>Multiply sq. ft. by:</i>
a. Double wood floor—over cool basement or other enclosed space	15
b. Same as 4a—but open space below floor exposed to outside	32
5. Infiltration (Air Leakage)	
	<i>Multiply each sq. ft. of window and door area by:</i>
a. WINDOWS AND DOORS	
Average fit—Not weatherstripped	50
b. Average fit—weatherstripped (or equipped with storm sash)	30
c. Poor fit—not weatherstripped	140
d. Poor fit—Weatherstripped (or equipped with storm sash)	43
e. Extra for each outside door	1000
f. Extra for air lost up fireplace flue	3000

*Above factors are approximate heat loss through each sq. ft. surface with 70° inside and —30° outside.

tween the masonry and the plaster—this is called a "furred wall." Note 2c in Table 1.

Probably the most popular type is the frame house built entirely of wood. Frame houses are built up like a sandwich in layers. The layer of the sandwich exposed to the outside is usually drop siding or shingles of asbestos, wood or asphalt. Next comes a layer of heavy paper which is applied to the wood sheathing. Sheathing is nailed to 2 x 4 upright studs which form the main frame work of the wall. The inside surface is usually lath and plaster or some type of wall board. This wall is described on line 2b of Table 1.

Insulated sheathing is an insulator and one inch of this sheathing will retard the flow of heat more than will one inch of wood. See line 2d of the Table 1. To reduce the heat loss, the stud space is often insulated with one or two inches of blanket type insulation. Heat loss factors to be used for insulated walls are listed on line 2d and 2c of Table 1.

The third main type of wall construction is a combination of the frame and solid masonry types. These are called brick veneer or stone veneer houses. The exterior walls are built of frame construction and in place of the drop siding a single course or layer of brick or stone is used to provide the outside surface. These houses are usually more expensive than frame houses, since it means that a mason is required for this part of the work. Brick veneer walls have about the same rate of heat flow as frame walls and this wall is described on

line 2b of the "Heat Loss Factor" (Table 1).

Ceilings are usually constructed of lath and plaster or wall board. If there is no second floor then the heat loss factor to be used is given on line 3a. However, ceiling insulation is very often used nowadays and this helps to reduce the ceiling loss. For insulated ceilings the factor given on line 3b should be used. In the case of unheated rooms above the first floor the factor given on line 3c should be used. This same factor applies to interior partitions separating the heated and unheated rooms.

The Problem of Floors

Floors usually consist of a wooden base called the sub floor which is overlayed with some type of finish flooring. Proper heat loss factors to be used for floors can be selected from Part 4 of Table 1. Notice that the heat loss is considerably greater for those floors which are exposed to the cold outside temperatures than those which are over basements or enclosed foundations.

To actually calculate a heat loss we must find the number of square feet of wall surface exposed to a temperature lower than the inside temperature. To do this we only have to measure the length of the wall in running feet exposed to the outside and multiply it by the ceiling height. We call this the *gross* wall because most walls usually have windows and doors. It is necessary that we subtract the square feet of glass from the gross wall, leaving us the *net* wall.

The reason for making this separation is that the glass and doors transmit the heat at a much higher rate than the wall and we must estimate the amount of heat transmitted through each type of surface. Since doors are usually made up of thin panels and often contain a large proportion of glass we always consider the term "glass area" to include the number of square feet of both doors and windows. In other words, we will not make two separate calculations to find the heat transmitted through the doors and windows but will add the square feet of windows and doors together and only make one calculation.

In this connection it should be remembered that we use the window opening sizes—window case to window case—and not just glass size to obtain the square footage of glass area. If the windows are of single thickness glass the "Heat Loss Factor" shown on line 1a of Table 1 should be used. If the house is equipped with storm sash and storm doors the factor on line 1b should be used.

Then Comes the Ceiling

The next step is to find the number of square feet of floor area if the space below the floor is not heated. We must also take account the amount of heat transmitted through ceiling. Ceiling area is equal to the length of the room (or building) in feet multiplied by the width of the room in feet. The result is the area in square feet.

If there is a heated room above or below the room for which we are figuring the heat loss, there can

be no heat transfer through the floor or ceiling. There can be no transfer of heat unless there is a difference in temperature between the two spaces! If rooms next to the heated room are unheated then the area of the partition wall separating the two rooms must be calculated.

Each of the above areas should then be multiplied by the proper factor selected from one of the "Condensed Method" tables. This gives you the Btu loss of 100° differential through each of the areas.

Next, we must estimate the infiltration or air leakage losses. The amount of heat lost by infiltration depends upon the amount of cold air blown into the house. This in turn depends on the size of the window or door and how tightly they fit.

To determine the infiltration loss of any house, simply multiply the area of the doors and windows by one of the appropriate factors given in Part 5 of Table 1.

1000 Btu for Each Door

Since doors usually do not fit as tightly as windows, and to allow for the air blown into the house when the doors are opened and closed 1000 Btu should be added for each outside door. This 1000 Btu is still based on our original 100° temperature difference.

Fireplaces are usually very inefficient and really a source of heat loss. This is especially true of a fireplace with an open damper and no fire. The fireplace flue is constantly sucking out warm air from the house which must be replaced

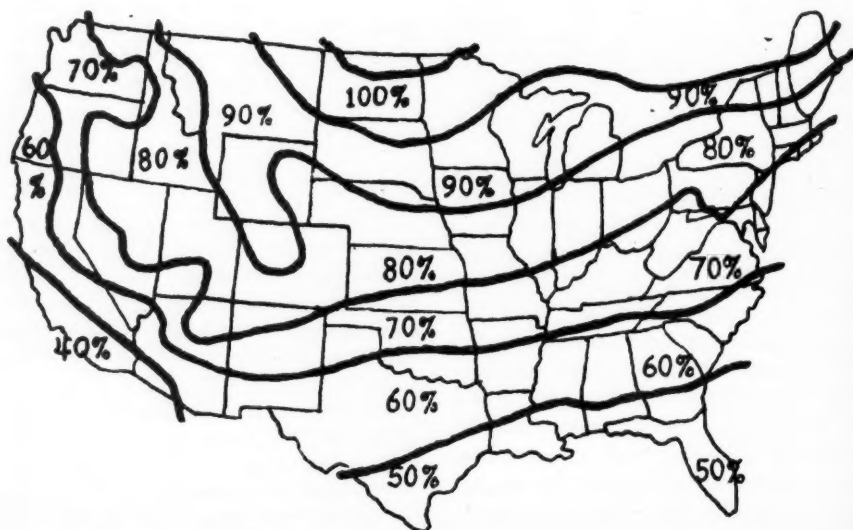


Fig. 1

TABLE 2

	Area	Factor	Btu/Hr
Find the gross exposed wall: (30+25+30+25) × 8' ceiling height=	880 sq. ft.		
Find glass area and proper factor:			
9 windows at 12 sq. ft. each=	108 sq. ft.		
2 doors at 20 sq. ft. each=	40 sq. ft.		
Net wall area (gross wall minus glass area)	148 sq. ft.	× 113 (1a)=	16,724
Ceiling Area: 30' × 25'=	732 sq. ft.	× 30 (2b)=	21,960
Floor area: 30' × 25'=	750 sq. ft.	× 34 (3a)=	25,500
Infiltration	750 sq. ft.	× 15 (4a)=	11,250
Extra for outside doors	148	× 50 (5a)=	7,400
	2	× 1000 (5e)=	2,000
Hourly heat loss based on 100° T.D.			84,834
Climate correction multiplier (See Fig. 2, Dallas area)		× 60%	
Actual heat loss, based on 60° T.D. for Dallas area			50,900
			Btu hr

with cold outside air. To take care of this condition 3000 Btu should be added to the heat loss.

Now we add together all the heat lost from the various sources. The total represents the amount of heat that would be lost from the room or building if the outside temperature was 30° below zero and the inside temperature was 70°. Of course, heating requirements are less where the temperature does not get so cold.

Actually, it is directly proportional to temperature difference. The average minimum temperature in southern Oklahoma is 10° above zero. The temperature difference between inside and outside is 70° minus 10°, or 60°. Therefore, the heating requirements are only 60/100, or 60%, of the heat loss figured at 100° temperature difference.

The map (Fig. 1) given with the heat loss factors is zoned according to the different winter design temperatures and gives the "climate correction multiplier" by which the

results based on 100° should be multiplied to find the actual heating needed for the particular location in which you are working.

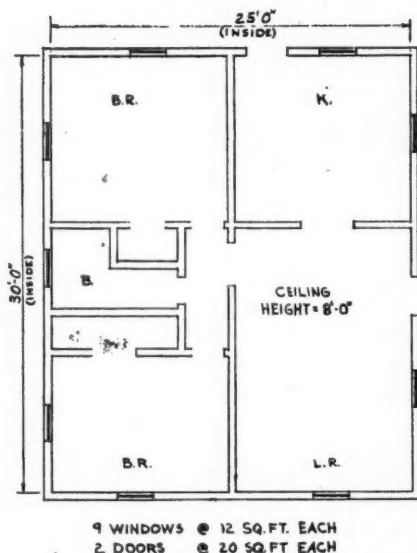
After the heat loss has been corrected to the local design conditions, proper sized heating equipment can be selected.

This method of figuring heat

A heating survey form, convenient for dealers to use in estimating customer needs, and a condensation of the information in this article has been prepared in folder form and may be obtained from the Coleman Co., Inc., Wichita, Kan.

For those who are interested in knowing more of the details of calculating heat losses we recommend the thorough study of Section 3 of Practical Warm Air Heating, entitled "Measuring Heat Losses," which has been edited by Prof. S. Konzo and G. A. Voorhees. This booklet may be obtained from the National Warm Air Heating and Air Conditioning Association, 145 Public Square, Cleveland, Ohio, for the sum of 50 cents. Much other informative factual data may be obtained from the Small Homes Bulletins, which are published by the University of Illinois. A list of the available bulletins, along with prices, can be had by writing to Small Homes Council, Mumford House, University of Illinois, Urbana, Ill.

FIG. 2



losses is best understood by following through, step-by-step, the heat loss calculation of a house located in the Dallas, Texas, area. Notice from the drawing (Fig. 2) that the house is 30' x 25' and has an 8' ceiling. It has 9 windows, each of which has 12 square feet of glass area, and two doors each with 20 square feet of area.

The outside walls are of average frame construction with no insulation. The ceiling is not insulated and the house has a double wood floor with an enclosed space below. The windows are of average fit, not weatherstripped and are of single thickness glass. To find the heat loss of the entire house see Table 2.

National Fire Protection Week Set for Oct. 5-11

Ignition of liquefied petroleum gas is seldom the cause of any of 1,700,000 fires that cost the lives of 11,000 Americans every year, but the observance of National Fire Prevention Week from Oct. 5-11 will serve as reminder to LP-Gas dealers that they are handling a flammable product—and that safe practice pays off.

Principal causes of fires on farms, where LP-Gas is a standby as a fuel, are defective chimneys, faulty stoves, and flaws in heating systems. The farm fire loss is estimated at \$85 million annually.

Nationally, defective heating equipment and defective or overheated chimneys and flues cause almost 100,000 fires. Careless handling of flammable liquids cause 28,000 conflagrations each year and cost Americans \$16 million. Misuse of electrical equipment and defective wiring cost the nation \$36 million dollars last year.

Fire Prevention Week is under the auspices of the National Fire Protection Association. The program is underwritten by President Truman and the governors of several states.

Roger Laubach Organizes Company in Oklahoma City

A new LP-Gas operation, the Oklahoma Ruralgas and Equipment Co., opened operations on N. W. 10th St. at May Ave. in Oklahoma City Sept. 1.

The new concern was organized by Roger Laubach, formerly connected with Black, Sivals & Bryson as assistant sales manager of the propane gas equipment division, and Weldon Pugh, who has been service manager for the American Butane and Propane Gas Co. The new concern will handle LP-Gas systems, appliances and distribute both propane and butane.

LP-Gas Proves Best Fuel for Cold Room Poultry Brooding

AN ever-increasing source for LP-Gas sales is to be found among poultry raisers. Many of the more progressive chick and turkey raisers are turning to LP-Gas-fired brooders for this purpose.

One alert gas dealer, George A. Dennis of Napoleon, Ohio, is convinced that LP-Gas is the ideal fuel for brooding purposes, both from an efficiency and economy viewpoint.

An installation of Hudson Hart gas brooders and LP-Gas equipment of which Dennis is particularly proud is at the farm of Russell F. Kinner of Edon, Ohio.

This turkey raising enterprise in the northwestern part of Ohio is operated on a large scale, 8000 turkeys being raised during the year.

Twenty Hudson Hart gas brooders were used to brood the 8000 turkey poults and this was accomplished with only a 4% brooding loss. This is exceptionally low for turkeys which are easily excited and frequently smother when they flock together in a frenzied state.

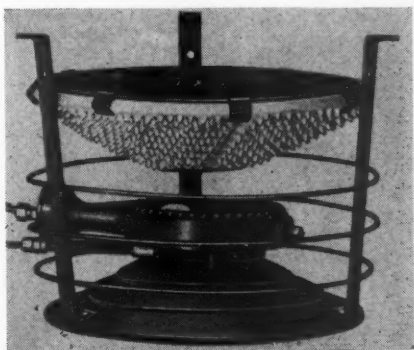
Mr. Kinner has used other kinds of brooders in the past but states that the gas burning brooders are cheaper and much easier to use. They save several hours of labor a day as they need very little attention.

He started 5000 poults in April and 3000 in July and keeps them

under the brooder from 8 to 10 weeks.

These brooders are considered a cold room type and blanket the entire floor area under the hover. Heat extends only a few inches beyond the edge of the hover when the brooder is set on the floor. This feature saves the user much expense as no gas is used to heat the room. Advocates of cold room brooding claim chicks and poults are healthier with this method and state they mature much faster.

Chicks are started with the brooder resting on the floor. As they grow, the brooder can be elevated to allow more head room and to prevent injury to the chicks or



The Hudson Hart radiant burner used with poultry brooder.

poults. Rope and pulleys are furnished.

Each brooder is equipped with a precision Hart gas thermostat which is responsive to the slightest temperature change.

Burner has pilot light which is economical and efficient in operation. Special clay radiant reflects

Hudson Hart gas brooder elevated a few inches from the floor to provide head room for young turkey poults.

radiant heat throughout the entire brooder.

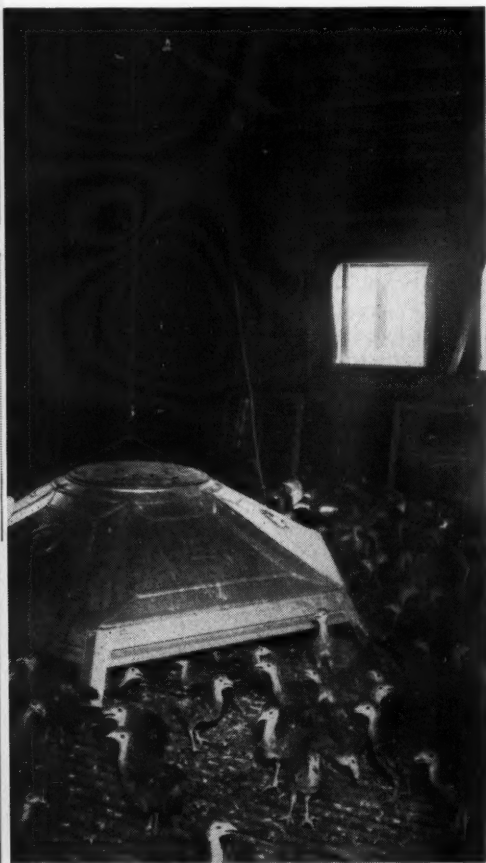
To insure a proper supply of fresh air in the brooder, three ventilators are located in the center of the hover sections. The 66-inch hover has a capacity for 250 turkey poults or 500 day-old chicks; the 84-inch hover will brood 400 turkey poults or 750 day-old chicks.

Mr. Kinner was not able to estimate the brooding cost per turkey poult, because when the interview took place, the brooding operation was still in progress. He is certain, however, that the cost is low, and particularly so when all factors, such as the reduction in labor and time, are considered.

Baby chick brooders that are designed to use LP-Gas for fuel offer many advantages to the chick raiser, according to the H. D. Hudson Manufacturing Co., Chicago, manufacturers of the Hudson Hart gas brooder.

Their engineers for the past two years have conducted a series of interesting tests that prove the efficiency of this fuel for use in brooders.

In one test in the East during the seven coldest weeks in January and February, it was found that the Hudson improved Hart gas brooder operated at the same cost as coal, which in the past, was the lowest cost fuel for brooding purposes. In addition, the dealer conducting the test, claimed it was actually considerably more economical than coal. He based this opinion on the fact that LP-Gas was a labor-saver. The only work involved was the attaching of the fuel line





LP-Gas tanks connected for brooding operations at farm of Russell F. Kinner (right), turkey raiser of Edon, Ohio. On the left, George A. Dennis of Napoleon, Ohio, gas dealer who services this farm.

in the initial installation, while, with the coal brooder, the user had the constant problem of keeping the brooder supplied with coal. To add to his burden he had the additional task of removing the ashes and carting them away.

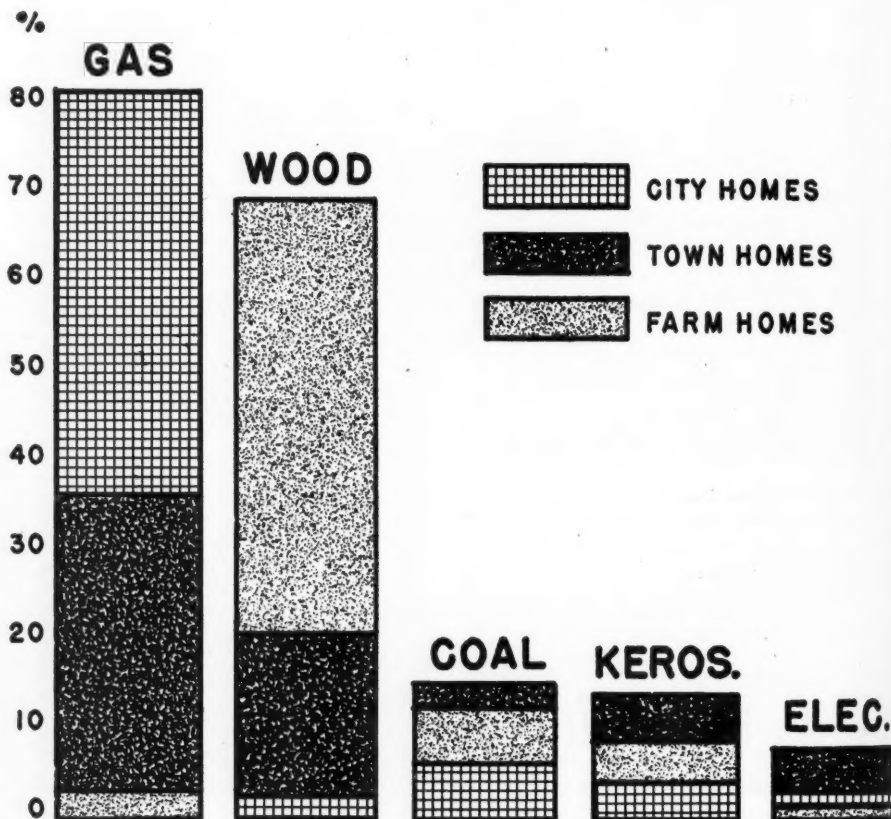
Chick mortality was exceptionally low. Feathering was better than on chicks brooded under the coal brooder. General health and appearance were additional advantages secured with this cold room brooding method.

LP-Gas is easy to regulate with the Hudson Hart valve which is an

important part of the brooder. Even temperatures can be maintained because with LP-Gas the valve is responsive to the slightest increase or decrease in the temperature around the brooder.

Company engineers pointed out the importance of properly maintained brooder houses. The tests indicated that insulated buildings with air-tight windows and doors and proper ventilation pay the chick raisers higher dividends in fuel savings and insure increased broods of healthier chicks, important to commercial broiler raisers.

LP-Gas Battles With the Fuels



How the Nation Cooks

Gas cooking acceptance loses ground as it leaves the big cities but is not overtaken by electricity even in small towns and rural areas where other fuels are still favored. Part of the answer to the higher gas acceptance, as compared to electricity, in this market is LP-Gas which has taken more than 14% of the entire small-town rural area market.

Graph and statistics prepared by "Retailing" and used here with permission.

Problems Involved in Converting Two Washington Towns to Propane-Air

I PURCHASED the manufactured gas plants of Puget Sound Power and Light Co., located in Bellingham and Wenatchee, Wash., in September, 1945.

It was our plan to convert these plants to propane-air and change the Btu delivered to the customer from 500 to 1000. The increase in Btu was decided upon for several reasons. First, our pipe line capacities would be increased about 25%; however, not doubled, due to the higher specific gravity of propane-air. Second, to exactly double the Btu given would simplify the billing rates both for our new, inexperienced personnel and make the doubling of our old rates more easily explained to our customers. Third, should natural gas ever be brought to the Northwest, our gas proportioning equipment would be suitable with minor adjustments as standby equipment. Also, a minimum of adjustment would be necessary to customer equipment.

The next step was to place orders for equipment such as storage tanks, compressors and gas proportioning. These orders were placed



STEWART
MATTHEWS

By STEWART MATTHEWS

President, Northern Gas Co., Seattle

about Nov. 1, 1945. As Bellingham had only 2000 odd customers and Wenatchee only 400, we were too small to have a large staff of engineers and supervisors so I had to act as engineer, purchasing agent and straw boss.

After the placement of orders for plant equipment, I sent service men out to survey the equipment of every customer. Every piece of equipment was listed as to make and model. From these voluminous reports we ordered from the manufacturer as many change-over parts as possible. This survey is now also proving its worth for sales contacts. Our life-saver, however, was the servicemen's kits and thousands of blank and drilled insert orifices we purchased.

As propane-air has a specific gravity of approximately 1.2 compared to around .67 for manufactured, we carefully surveyed all automatic pilot lights on water heaters and ranges and ordered 100% pilot shut-offs. Due to the shortage of this equipment, we are still installing them as received from the factory. Good safety practice would have been to have installed them prior to the propane-air inspiration to the lines but such was not possible at that time. However, by cautioning the customers,

no serious accidents have occurred to date.

Wenatchee, with its 400 customers, was ready for the cut-over on June 15, 1946. The plant installation consisted of one 18,600-gallon propane storage tank, a large Roney unloading compressor, two 5000-cu. ft. per hour Gas-Air machines and necessary piping and header. The Wenatchee mains carry 2½ lbs. pressure so that the old 55" pressure storage tanks were used as surge tanks and the holder was by-passed.

Three days before the cut-over to the new gas, letters were sent to customers in an envelope stamped "important," advising them that

the new gas would be cut in starting at a certain hour and that they should turn off automatic water heaters and ovens, keep their top burners turned down.

Also, the letter advised them that a preliminary adjustment would be made so that everyone would be covered as soon as possible. It was impossible to sectionalize the service areas.

Prior to cut-in date, separate cards were prepared in duplicate for every customer, with their names and equipment data. One set was filed alphabetically for office reference, the other set by route. Approximately 20 route cards per day were given each service man,

Tank car being unloaded at the Bellingham, Wash., plant, changed over from manufactured gas to propane-air.



plus a supply of red cards to hang over doorknobs of people not home, advising the customers that the gas man was there to adjust their equipment and to phone the office and leave word when he could call back. In operation, the service man noted on his card after each call, the work done and any call-back work to be done, such as raise side-arm water heater burners, or install 100% shut-off not yet received.

At Wenatchee the regular service crew was augmented by service men from Bellingham, making a total of 10 men. Each was furnished with a tool box containing necessary tools and orifices; men were briefed on various appliances,

change-overs and on adjustments.

An extra phone and a dispatcher were on hand during the period to dispatch emergency service men or supplies to service men as needed.

Every night service men turned in their cards to be correlated with office cards.

During the original adjustment the radio was continually advising gas users as to the procedure to follow. Fire departments had previously been instructed on the handling of liquid gases through a bulletin to all firemen. No accidents occurred except to one commercial cook whom we think had been imbibing from the extract bottles.

In both Bellingham and Wen-

The new propane-air gas plant of the Wenatchee Gas Co. changed over from manufactured gas. Columbia River at right.





Sales office, Wenatchee (Wash.) Gas Co.

atchee the new gas was cut into the lines about 10 p.m. on Saturday night and service crews started about midnight to work on restaurants and commercial cooking. They worked night and day to give a preliminary adjustment before Monday morning. The larger the system the longer it took for the old 500 Btu gas to be disseminated and this varied with the topographical contour of the area. Mainline regulators were increased from 5" to 7", which seems to be the most satisfactory pressure for 1000 Btu propane-air.

The ideal time to make such a change-over seems to be around June when the load is light and adjustment on heating equipment can be delayed until later.

Procedure in Bellingham was

fundamentally the same as in Wenatchee except that it was a much larger system and portions of the main system were sectionalized and two gases were used until it was completed.

In Bellingham each experienced service man had a crew of several college students on vacation who worked in the area with him. For a day or two he checked their work and eventually only took over the more difficult changes.

We found people who complained for the first few weeks but soon became accustomed to the new gas and much preferred it.

Liquid gas will dry out the main, causing plugged services and mains for several months. This plugging in spite of the use of fogging oil, became apparent about



Sales office, Bellingham (Wash.) Gas Co.

four months after the change-over and continued for six months to a discouraging degree but is now decreasing; so have service calls. The new gas has freed up a lot of slow meters; hence, high bill complaints. Due to the war, most of our meters had not been tested for over five years. Now, some 10 months after the change, we find that about 30% of the meters we bring in are running fast. We have had a large meter crew for months correcting this condition. To date, our unaccounted for has not been out of line but we will not be able to accurately determine our line loss until our meter problem is rectified.

I might suggest that on very old systems where there may be considerable line restrictions due to residual deposit that a careful

check on main capacity and customer demand be checked before change-over. If main capacity is inadequate, portions should be converted to a higher pressure, say 40"-50". This, of course, depends on the change in Btu. During and after a change-over, customer relations are at a low ebb. Everyone wants a perfect and final adjustment the first day. If pressure difficulties are added to appliance adjustment, the headache becomes migraine. I know.

People with antiquated equipment (low burners, etc.) will complain the most. They must eventually be sold on the idea that their equipment is like a Model T Ford which won't work efficiently on a modern 100 octane Ethyl gasoline.

To summarize the attendant

troubles after change-over, they are:

1. Careless orifice adjustment by change-over service men which necessitates readjustment.

2. Plugged services and mains for a year or so, depending on previous conditions.

3. Meter bellows and packing drying out, causing fast and slow meters.

4. Some pressure trouble developing on old mains.

5. Customers expecting an unjustified amount of service on antiquated appliances. (After a reasonable number of call-backs, and an explanation to the customer, they are sold new equipment or a service charge is made. The latter stops the calls).

To offset this, when the job has been thoroughly and well done, the customer eventually is satisfied and then becomes a booster and your best salesman.

For example, Wenatchee the first year before conversion, barely kept its customers (400). It would have lost ground if competitive products had been available. In the 11 months since final conversion our business in Wenatchee, which is the heart of the "Electrical Empire," has increased 57.5%!

Paul Cruce Purchases LP-Gas Business in Tulsa

Paul Cruce, formerly with the Philgas Division of the Phillips Petroleum Co. as Oklahoma representative, has assumed active charge of the Cruce Butane Co., Tulsa.

Mr. Cruce purchased the business from the Gaines Butane Equipment Co. in May. J. E. Goins, who has been managing the firm, will remain as sales manager.

CNGA Completes Plans for Annual Fall Meeting

With three out-of-state and two California men on the speaking program, the California Natural Gasoline Association's 1947 Fall Meeting will be held Friday, Oct. 10, at the Ambassador hotel, Los Angeles, Frank J. Colton, CNGA president, has announced.

The speaking program has been arranged by the Fall Meeting committee, of which R. S. Ridgway, Standard Oil Co., is chairman. The evening dinner and show will be under the direction of the entertainment committee, headed by R. E. Raasch, OFCCO Construction Co. Plans are also being made for an all-day session of CNGA's technical committee on Oct. 9, to which members of the technical committee of the Natural Gasoline Association of America will be invited.

Papers Will Be Important

The papers to be presented at the Fall Meeting will be of great interest to natural gasoline men, and to oil men generally. Speakers and their topics are as follows:

"Adaptability of Centrifugal Compressors to Gasoline Plant Operations," by Dan McDonald, Magnolia Petroleum Co.

"Motor Fuel Sensitivity," by E. J. McLaughlin, California Research Corp.

"Cycling at High Pressures vs. Depletion and Cycling at Low Pressures," by E. O. Bennett, consulting engineer.

"Future Outlook for Btu's in California," by Marion Dice, General Petroleum Corp.

C. L. Moore, El Paso Natural Gas Co., will give a general descriptive paper on that company's operations in connection with the delivering of natural gas to California.

Gas Cylinders, Resisting Fire, Create Public Confidence

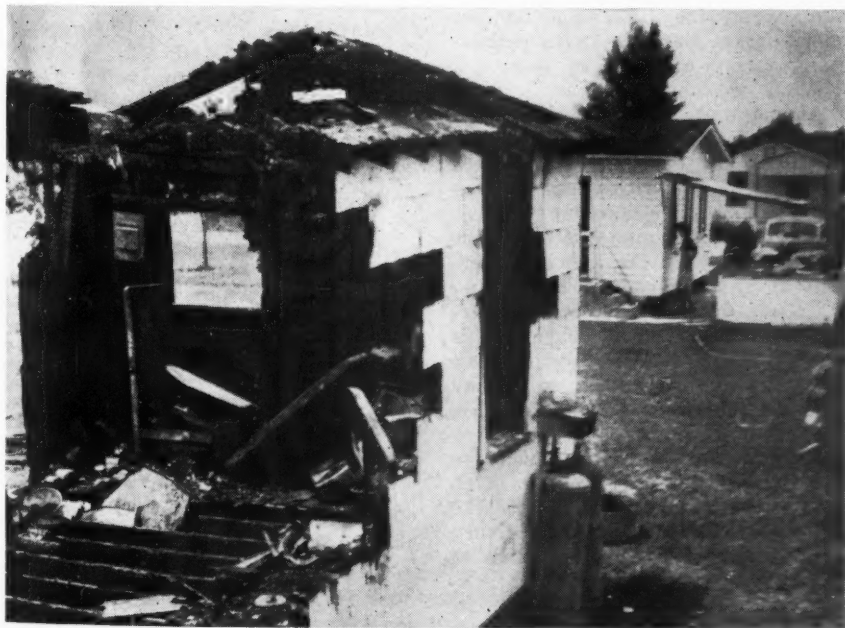
NO one was in the Williams home, Miami, Fla., when it burned. Neither did anyone dare go near those drums of bottled gas in the midst of blazing timbers. Even the asbestos shingles proved unable to withstand the heat. The place was completely destroyed, leaving little to be salvaged.

Alongside the home, where the flames raged most fiercely, was the "Dri-Gas" equipment. There were two

By MINNETTE LAKE WARREN

cylinders of gas—one completely filled, and the other partly so. What was going to happen, when they exploded? No one was able to foretell with accuracy—but they did not explode!

The fire burned itself out, eventually, and still those drums stood there. They were so hot that they could not



Several hours after the fire, these two bottled gas cylinders were too hot to touch; but there they stood, in fine condition, ready to be cleaned, tested and put back into operation.

be touched. The tall, galvanized steel cylinders, regulator, and its metal cabinet container, were all in good condition. After testing it was found they merely needed cleaning up some before again being put to use.

Fire Reacted Beneficially

"Our loss amounted to about 15 feet of tubing," stated Mrs. Pearl Alderman, manager of the Dri-Gas Co. "A business concern does not stage a fire, for the purpose of testing its products; but nothing could have accomplished this more thoroughly than the Williams occurrence."

The Dri-Gas—a local industry owned by Charles Van Derlinder—has operated at its present Northeast Second Ave. location for 11 years. Mrs. Alderman has been associated with the concern for ten years, acting as manager since 1944. She handles the affairs of the office with enthusiasm.

"While we ship our gas in from Oklahoma and Texas, just as other dealers do," she explained, "we operate our own bottling plant right here in Miami. We have three large storage tanks."

In spite of war handicaps and shortages, the Dri-Gas Co. has gone forward at an astonishing rate during its decade of existence. Mrs. Alderman attributes a goodly share of this success to the sale of appliances. There is a fine assortment on display—stoves, water heaters, room heaters, and refrigerators.

"If you want to sell gas, sell the accessories," she advised, "or some other dealer will beat you to it. We go a step farther than that. Every salesman is thoroughly trained to school his customers in how to handle what they buy. We average 14 employees. Everyone of them must come up to our standard of efficiency and courtesy, or walk out—regardless of

man-power shortages, and labor problems."

Seven delivery trucks are operated, but no soliciting by drivers is attempted.

"We have all the business we can handle," affirmed Mrs. Alderman. "The Williams fire, tragic as it was for our customer, worked a miracle for us. Through it, the public learned that with properly constructed and installed equipment, bottled gas is actually safer than other fuels. Look at those drums. They were furnished with safety valves, as all of our cylinders are, and they proved entirely adequate to meet the emergency. When they have been cleaned and tested they will be ready for reinstallation—as good as new!"

Mrs. Alderman views the bottled gas prospects with an optimistic eye.

"There is every indication that the popularity of gas will increase, rather than diminish," she affirmed. "Bottled gas has so much to commend it. It is superior in many ways to anything else on the market, and it is economical."

"As for this area," she went on, smilingly, "there will be a big building boom on as soon as materials are available, and many of the new structures will be outside the city gas main service. What's going to happen? Well, any Dri-Gas man can tell you!"

New Propane Gas Distributing Units Under Way in Georgia

The Community Gas Co. is having opening ceremonies for its building along Seaboard Airline Railroad's right-of-way in Tucker, Ga. Foundations for a second building for Hudson Gas and Appliances, Inc., were laid alongside the Southern Railway tracks in Brookhaven.

THE REPUTATION OF *Lawson* GAS APPLIANCES

Is Based on *FIFTY YEARS* Of Dependable Performance

More than half a century's efficient, economical service has won Lawson high standing in the gas appliance industry. Lawson gas appliances are designed by skilled engineers, always abreast or ahead of the field, and manufactured to rigid specifications.

Customers associate both quality and dependability with the Lawson trademark, a fine reputation earned by fifty years of service.

Specially Designed

FOR USE WITH

LIQUEFIED PETROLEUM GAS

1. AUTOMATIC GAS WATER HEATER

Attractively designed, completely automatic and equipped with snap-action thermostat and positive action safety pilot controls. Available with controls concealed (as above) or exposed.

2. GAS FLOOR FURNACE

Modern, circulating air heating system contained in a single unit. Equipped with complete safety controls.

3. COPPER COIL WATER HEATER

Simple operating double coil water heater for use with 30 to 100 gallon range boiler. Available for automatic or manual operation.

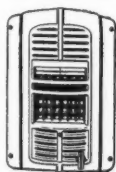
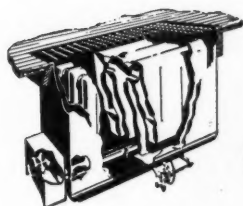
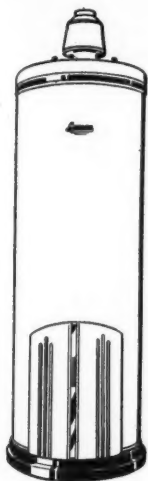
4. WALL INSERT HEATER

Compact, radiant heater designed to fit into bathroom or dressing room wall. Provides both circulating and radiant heat. Manually operated.

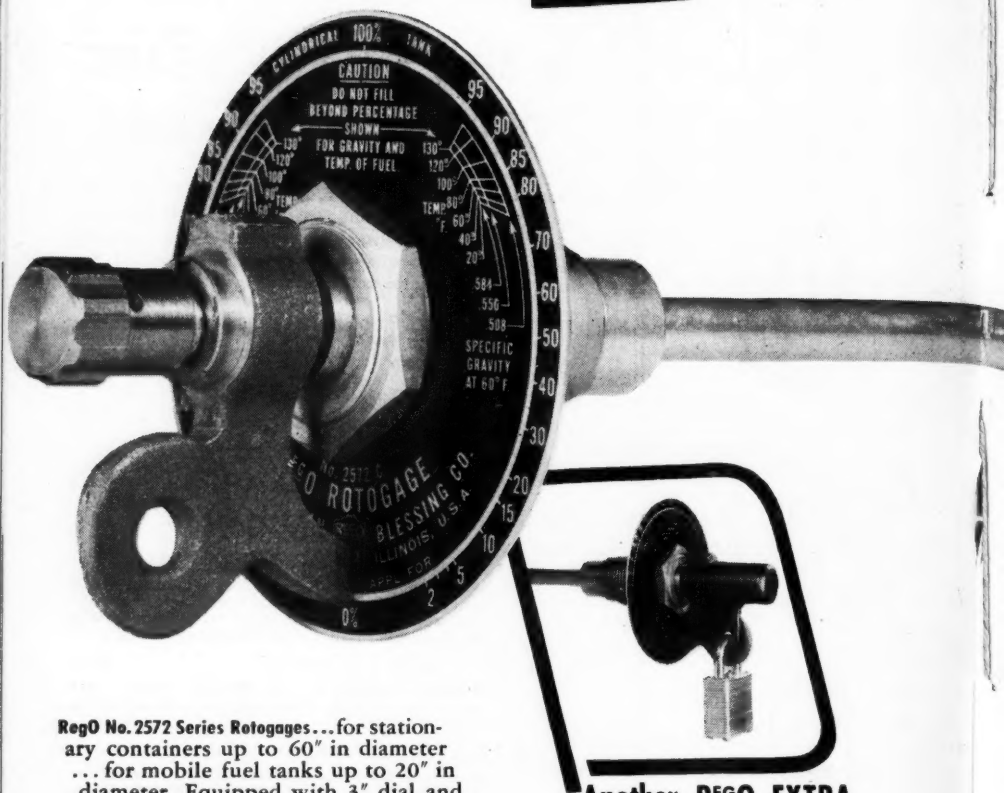
Lawson

MANUFACTURING COMPANY

300 N. LEXINGTON AVE • PITTSBURGH 8, PA.



EXTRA ACCURACY EXTRA



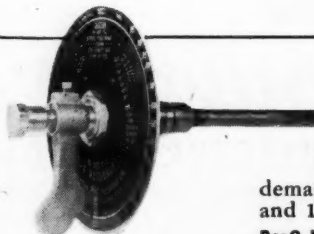
RegO No. 2572 Series Rotogages... for stationary containers up to 60" in diameter ... for mobile fuel tanks up to 20" in diameter. Equipped with 3" dial and $\frac{3}{4}$ " male taper pipe thread connection.

RegO No. 2572C Rotogage... for mounting on cylindrical container.

RegO No. 2572S Rotogage... for mounting on sphere.

Another REGO EXTRA

Protective cap can be locked in place to prevent tampering. This feature is ideal for domestic installations. It also saves the cost of installing locked-type hood.



REGO No. 2582 Series Rotogages for Bulk Storage and Transport Containers

Essentially the same as its smaller counterpart, but larger in size and more rugged to meet the demands of large installations. Equipped with 7" dial and 1" male taper pipe thread connection.

RegO No. 2582C Rotogage... for mounting on cylindrical container.

RegO No. 2582S Rotogage... for mounting on sphere.

EXTRA CONVENIENCE EXTRA SAFETY!

New **REGO** ROTOGAGE for Cylindrical or Spherical Containers . . . Stationary or Mobile Installations . . .

SIMPLE, POSITIVE OPERATION . . . Contents of a container may be checked easily by setting the indicator at 100% on dial, opening bleeder valve and turning indicator handle until liquid is discharged from bleeder valve—indicator then points to percentage of fuel in tank.

Filling container to correct percentage is equally easy—indicator is set to desired percentage, bleeder valve is opened at intervals and fuel is pumped into container until liquid is emitted from bleeder valve.

LEAKPROOF CONSTRUCTION . . . A leakproof seal in the Rotogage is achieved by a special design by which the seat is spring-held against a resilient seat washer. This design eliminates repacking and insures prolonged leakproof operation, as take-up of wear is automatic.

PIN CLEAN-OUT... Clogging of restrictor in the bleeder valve is eliminated by a clean-out pin, a feature which has proved its worth in thousands of RegO Slip Tube Gauges.

FREE ACTION . . . The RegO Rotogage has a smooth and uniform action, due to the spring-loaded seal combined with accurate machining and fitting of moving parts.

DIAL CALIBRATION... Dials have accurate dual calibration so that readings may be taken easily and quickly from either right-hand or left-hand side. Each calibration is designed to show the maximum permitted filling level for LP Gas fuels at various temperatures.

* Reg. U.S. Pat. Off.

REGO
LP GAS EQUIPMENT

The **BASTIAN-BLESSING** *Company*

4201 W. Peterson Avenue Chicago 30, Illinois

ASSOCIATIONS

AGA "Gas Has Got It" Campaign Goes Beyond the Mains

WITH more than 23 million homes in the United States and Canada already using gas ranges, the dealers, manufacturers, and utilitymen of the industry have produced a huge coordinated promotional drive under the joint sponsorship of the American Gas Association and the Gas Appliance

Manufacturers Association. It is patterned to substitute positive acceptance of gas appliances for the remains of negative, pro-electric thinking—an approach which will be of direct benefit to all LP-Gas men facing electric competition beyond the mains.

Under the slogan, "Gas Has Got



Hugh Cuthrell, vice president of the Brooklyn Union Gas Co., speaker at New York "Gas Has Got It" meeting at Hotel Biltmore, Sept. 3, points to blow-up of pages from campaign portfolio.

It," the appliance industry will spend a million dollars this fall in a three-way offensive—on advertising, on publicity, and on promotion fronts. The full message of the campaign is, "It's Automatic. Gas Has Got It." For LP-Gas appliance dealers who will share in the enterprise through their manufacturers, it might be, "It's Gas. It's automatic. LP-Gas Has Also Got It."

The impetus for the program is provided by an Elmo Roper survey conducted for the American Gas Association. This survey revealed what American women want in their cooking equipment. America's housewives expressed nine points of preference in ranges that supply the framework for the promotional campaign. They are: (1) Best automatic features; (2) More modern convenience; (3) Easy to keep clean; (4) Easiest to cook with; (5) Cooks food better; (6) Cooks food quicker; (7) Cool in operation; (8) Costs less to run; (9) Costs less to buy new.

Campaign Under Way

The AGA-GAMA drive kicked off early in September with a series of regional meetings throughout the nation. Presentations by representatives of the industry oriented dealers and utilitymen on the highlights of the 1947-1948 advertising drive. Oct. 1 was set as the official starting date for the promotional venture.

Spearheading the AGA advertising force will be 98 million messages in 10 top magazines. Selected to do this job are the Saturday Evening Post, Life, Collier's, the Ladies' Home Journal, Good House-

Women's preferences in cooking equipment revealed by the Elmo Roper survey conducted by the American Gas Association in the order of their importance:

1. Best automatic features.
2. More modern conveniences.
3. Easy to keep clean.
4. Easiest to cook with.
5. Cooks food better.
6. Cooks food quicker.
7. Cool in operation.
8. Costs less to run.
9. Costs less to buy new.

keeping, McCall's, the Woman's Home Companion, Better Homes and Gardens, American Home, and Parents' Magazine.

Big national promotions by 20 leading manufacturers of gas ranges will augment the campaign. More than 1200 gas utilities also plan tie-in promotions.

Materials which will be available to LP-Gas range dealers as well as natural gas men will be local advertisements, ready-to-run newspaper mats, booklets, radio scripts, counter and floor displays, outdoor posters, catalogs, hand-out pieces, reprints, mailing pieces, cook books, recipe sheets, slide films and motion pictures, house service and sales helps, training programs, and other advertising and promotional helps.

Another vital element of the "Gas Has Got It" campaign will be the publicity program. The negative thinking regarding gas services and gas appliances as exposed

by the Elmo Roper survey can be attributed in no small part to the lack of publicity in the last decade concerning the advantage of gas.

To bring the world to the gas industry's door, the AGA publicity bureau is prepared to preach the gospel of "Gas Has Got It" through every possible medium. National magazines, trade magazines, radio and newspapers will be constantly supplied with variations of the nine cardinal points in which gas excels.

Nine-Point Promotion

A nine-point promotion tie-in has also been set up for dealers. To promote sales the AGA suggests: (1) that dealers set up a live floor demonstration; (2) that they use window, door, and outside display material; (3) that they arrange showing of an AGA full color film; (4) that they give every homemaker

a booklet entitled, "Food Is Fun," on automatic cooking with gas; (5) that they intensify consumer education; (6) that they reach the moulders of young America's thinking with a manual on automatic gas cooking; (7) that they tie in the AGA's new freedom gas kitchen program; (8) that they train company and dealer salesmen to sell automatic gas ranges; (9) that they make full use of envelope stuffers, inserts and pick-up pieces. All this material is ready for dealers at the American Gas Association offices, 420 Lexington avenue, New York 17.

All three phases of the "Gas Has Got It" campaign will be applicable in part to the needs of LP-Gas dealers and manufacturers. Manufacturers, utilitymen, and dealers have assumed that "Gas Has Got It," but that the women of America don't know about it yet. Top quality automatic gas ranges have been available for nine years, but 68% of the women in America don't know about them.

Half of these women have gas ranges 10 years old, and one-quarter of them have ranges 15 years old. What a market for new ones!

Now that postwar production is reaching the point where the consumer again has a choice in her selection of ranges, the time element is terrifically important. It would involve great risk to wait until next year or the year after to change the thinking of present and prospective users.

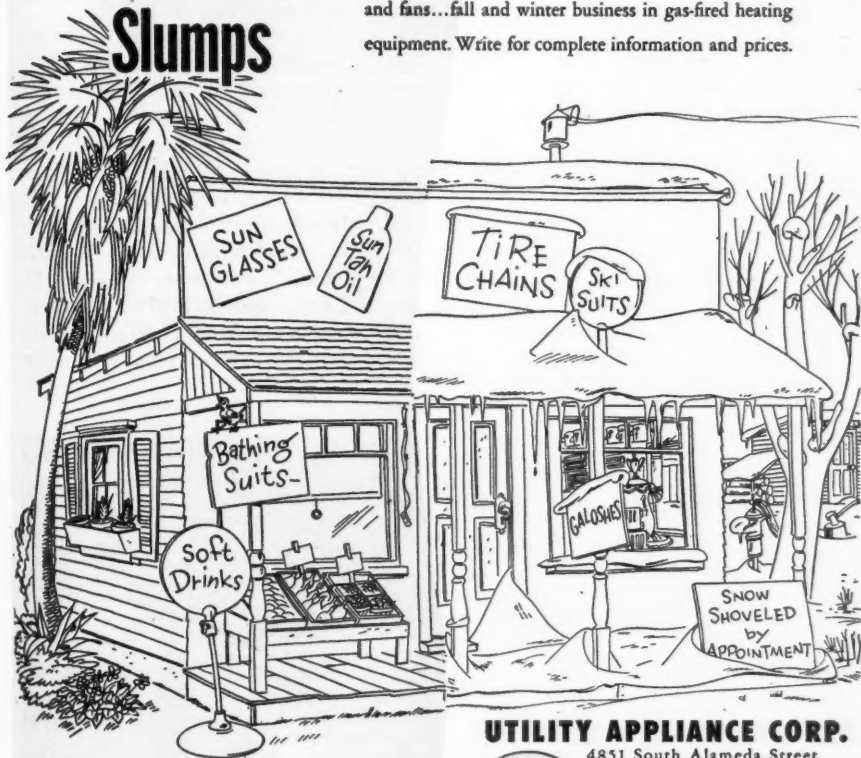
Something drastic must be done. Shock tactics must be employed. The need is national in scope, and thereby is being met by an attack

CALENDAR

- Oct. 2-3 — Missouri LP-Gas Association. Jefferson City, Mo.
- Oct. 6-8—American Gas Association Annual Convention. Cleveland.
- Oct. 10—California Natural Gasoline Association. Fall Meeting. Ambassador Hotel. Los Angeles.
- Oct. 13—Colorado Liquefied Petroleum Gas Association. (Annual Meeting and Trade Show.) Denver.
- Oct. 20—Association of Iowa Marketers of LP-Gas. Blackhawk Hotel. Davenport.
- Oct. 20-21—Kansas Liquefied Petroleum Gas Association. Hotel Broadview. Wichita.
- Oct. 27-28—Georgia LP-Gas Association. Atlanta. Biltmore Hotel.
- Nov. 17—Montana LP-Gas Association. (Annual Meeting.) Cutbank.
- Dec. 3—Wisconsin Liquefied Petroleum Gas Association. Annual Meeting.
- Dec. 10—LPGA South Central and South Eastern Sectional Meeting. St. Charles Hotel. New Orleans.

No Seasonal Slumps

Dealers who handle the complete Utility line have an active business all year — no seasonal slumps — profit every month. Crews keep busy and the cash register jingles... with spring and summer sales of air coolers and fans... fall and winter business in gas-fired heating equipment. Write for complete information and prices.



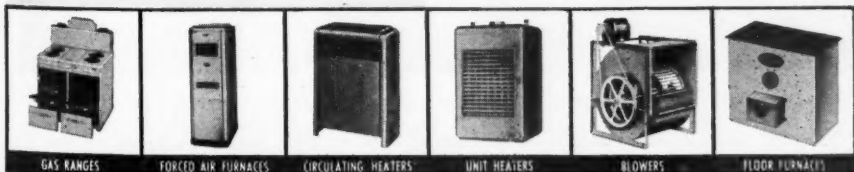
UTILITY APPLIANCE CORP.

4851 South Alameda Street
Los Angeles 11, California

UTILITY

DIVISIONS

UTILITY FAN CORPORATION
GAFFERS & SATTLER • OCCIDENTAL STOVE CO.



GAS RANGES

FORCED AIR FURNACES

CIRCULATING HEATERS

UNIT HEATERS

BLOWERS

FLOOR FURNACES

carried out on a national scale.

LP-Gas dealers, then, will gain by selling the proposition that butane and propane are gas — that LP-Gas Has Also Got It!

Georgia Dealers Will Meet In Atlanta Oct. 27-28

Dates have been set for the fall meeting of the Georgia LP-Gas Association. The association will meet at the Biltmore hotel in Atlanta, Oct. 27-28.

A membership drive, with an objective of getting every LP-Gas dealer in the state to join, is now under way. According to Sidney L. Stapleton, secretary-treasurer, the campaign is already getting results.

During the convention weekend, the Citadel-Georgia Tech football game will be played in Atlanta, and the

Georgia-Alabama game will be played in Athens.

Kansas Convention

The Kansas Liquefied Petroleum Gas Association will hold its Second Annual Convention and Trade Exhibit at the Broadview Hotel in Wichita, Kan., Oct. 20-21.

The two-day program will include discussions by industry leaders on topics of current interest to marketers of LP-Gas and LP-Gas appliances. Among those who will appear on the convention program are: J. H. DeLoria, sales promotion and advertising manager, Skelgas Division, Skelly Oil Co.; E. Carl Sorby, vice president, George D. Roper Corp.; Howard White, executive vice president, LPGA; John Knox Smith, field safety engineer.

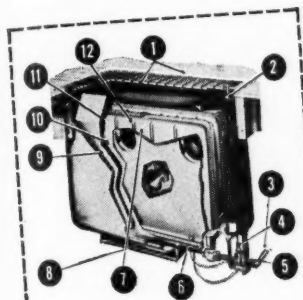


Left to right: W. B. Wight, president, Consumers Gas Co., Albany, and past president of Georgia LP-Gas Association; Sidney L. Stapleton, vice president, Georgia Automatic Gas Co., and secretary-treasurer of association; Fred A. Rives, president, Automatic Gas Co., and new president, Georgia LP-Gas Association.

Especially for the L. P. Gas Industry

Bu-Pro-Fire

Automatic Floor Furnaces and Space Heaters



CHECK THESE FEATURES

1. "In the floor" installation. Removable register. 2. Master valve handle at floor level ...
3. Main fuel line ... 4. Base 100% Safety Pilot ... 5. Automatic temperature control valve. (Thermostat is located on suitable wall.) ... 6. "Whisper quiet" burners, have lava ports. Stay clean. Will not burn out ...
7. Rib-reinforced steel combustion chamber with "lifetime" finish of porcelain enamel ... 8. Handy cleanout door ...
9. Return air intake... 10. Warm air output ... 11. Air-cell-insulated jacket ... 12. Combustion area. Note how 9, 10, 11, 12 are spaced for maximum heat exchange and circulation.



The Bu-Pro-Fire line includes a variety of space heaters, radiant or circulating types, all porcelain enameled, featuring a forced air model with automatic control and 67,500 B.T.U. capacity. Priced right. Good margins. Good deliveries.

● Here's a full line of fast-selling heating equipment *especially for your field*. Features a superior design floor furnace; includes space heaters for every need. Equipped especially for L.P. Gas. Named to identify with the L.P. market. This combination fits in with profitable L.P. merchandising:

1. **Sell Appliances Which Expand Your Gas Business** ... Every Bu-Pro-Fire installation means another L.P. Gas outlet. Increases your gas profits. Bu-Pro-Fire is easy to sell because of many user-appeal features (see list at left).
2. **Bank Double Profits** ... In addition to greater gas profits you get generous margins on Bu-Pro-Fire. This means additional *bankable* profit. You don't have to spend it on excessive installation or service costs.
3. **Expand with Your Present Equipment** ... Delivery and installation of Bu-Pro-Fire is as simple as gas service itself. Furnace comes as factory assembled unit, about half the size of an ordinary refrigerator. You can set one up, ready to heat, in a few hours.

WE HELP YOU SELL: Write today for details of our selling plan, dealer help materials, mailing pieces, displays which help you sell.

BU-PRO-FIRE

L.P. GAS HEATING EQUIPMENT
Tennessee Enamel Mfg. Co.
Nashville 9, Tennessee

New Mexico Dealers Awakened By Changes in LP-Gas Laws

By PAUL LADY



L. D. McCURDY, President

THE first annual convention of the New Mexico Liquefied Petroleum Gas Association was held in Albuquerque from Aug. 28-29. More than 150 registered for the two-day affair. Many of these came from great distances to learn more of the industry's growth in that area and to join with the dealers of New Mexico in a consideration of their problems.

The program and trade show held the interest of those in attendance throughout both days. Credit for the meeting's success can be given

to L. D. McCurdy, president; W. F. Kite, vice president and program chairman; and Richard C. Martin, secretary-treasurer.

As program chairman of the convention Mr. Kite proved himself extremely capable and carried an enthusiasm into the meetings that kept the entire program highly entertaining and instructive.

Although the program included many excellent papers, there was never any doubt that the high point of interest centered around the newly passed legislation which now controls the operation of the LP-Gas industry in New Mexico.

Thus, it was the subject "State Regulations," scheduled last, that drew the largest and most interested audience. Elmer F. Carter, accountant-engineer for the New Mexico Public Service Commission, which now controls the enforcement of the state laws governing the LP-Gas industry, appeared before the group to interpret and clarify the new regulations.

Mr. Carter did an excellent job in explaining the regulations and in making it clear that the Public Service Commission would extend every effort to interpret the new laws as fairly and workably as pos-



O. L. Garretson

sible. Because many parts of the new regulations are difficult to interpret and, from the standpoint of the industry members, are not practical, Mr. Carter's job was not easy. It was felt by most of those present, however, that he did much to bring about a better understanding of the laws, and that he did create a better feeling among the dealers present. There is no doubt that Mr. Carter did establish a basis for cooperative effort which will make it possible for the dealers and state officials to work out the problems arising from this new legislation.

Other speakers and their subjects on the two-day program included: President L. D. McCurdy, who welcomed the group to the convention.

O. L. Garretson, chief engineer, Sacra Brothers, Roswell, "Some Uses for LP-Gas Outside the Home."

Charles Corken, Corken's, Oklahoma City, "It's Easy When You Know How."

John Knox Smith, Safety Director, LPGA, Chicago, who discussed present trends of the industry in various sections of the country.

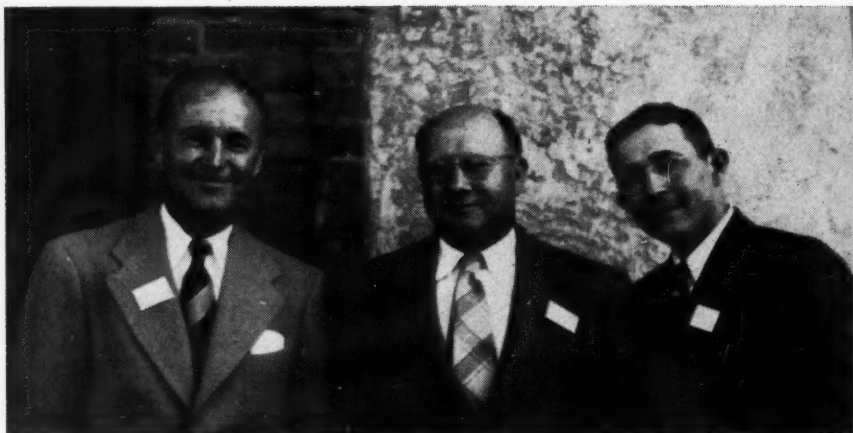
Charles Dougherty, Philgas Division, Phillips Petroleum Co., Amarillo, "Safety."

Charles B. Seidenglanz, Seidenglanz and Co., Dallas, "Let's Sell More Water Heaters."

B. B. Turner, general sales manager, Maytag Co., Newton, Iowa. He used the title "Automobiles,



Chas. M. Corken



Richard C. Martin, secretary-treasurer; Carl E. Golden, speaker;
W. F. Kite, vice president and program chairman.

Razors and Radios" to show the growth of a market for any product.

R. F. Hammack, Geo. D. Roper Corp., Rockford, Ill., "Sales Help for Dealer and Salesman."

Carl E. Golden, Ransome Co., Emeryville, Calif., "Fundamentals of Gas Pressure Regulation."

Paul Lady, BUTANE-PROPANE News, Los Angeles, "Self-Policing of the LP-Gas Industry."

Following are highlights from speeches presented at meeting:

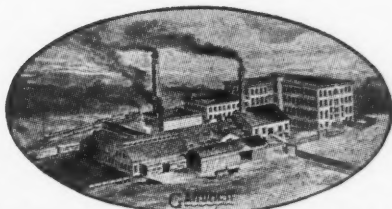
R. F. Hammack — We have reached the time when sales meetings and clinics should be held again . . . There is a great shortage of experienced appliance salesmen . . . Better men can be had only by giving them a better deal . . . When you pay a salesman a salary, you choose talent.

B. B. Turner—The LP-Gas industry faces competition within itself and competition from the electrical industry. To meet and beat competition we must specialize and have complete knowledge of our product and appliances . . . If the dealer is to survive in the intense competition that is to come, he must return to specialized selling methods.

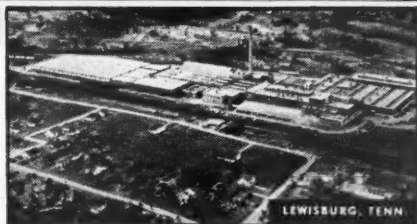
Charles B. Seidenglanz — Automatic water heating is considered a basic need today . . . More and more water heaters are being added to the load . . . This is a constant load . . . Only 50% of your customers have a hot water heater that is adequate . . . Your best salesman is your truck driver; make him learn your sales story . . . The water heater load is the "bread and butter load" of your industry.

John Knox Smith — We must

**YOUR ORDERS FOR
MORE AND MORE
Florence
APPLIANCES HAVE
BUILT THIS BUSINESS**



SEE HOW WE'VE GROWN! This small factory in Gardner has now become the huge plant shown below . . . and factories in Lewisburg and Kankakee have been added to increase production facilities to serve you better.



3 Great Factories can't keep up with the Ever-Growing Demand

FOR OVER 70 YEARS, Florence has supplied hundreds of thousands of satisfied housewives with the finest heating and cooking appliances.

This widespread demand for Florence products is the result of our policy of exhaustive testing and research, our years of manufacturing experience, plus strong advertising and promotion.

In order to fill your increasing orders for more Florence ranges and heaters, our manufacturing facilities have been expanded to the three modern factories shown above. Due to uncontrollable shortages of materials, the full capacity of these plants is not yet realized.

Because there must be no relaxing of

Florence high standards, we must still allocate orders. But you can be sure of this: Every Florence appliance you *do* get will give the complete satisfaction your customers expect from Florence ranges and heaters.

Florence
LP-GAS RANGES

FLORENCE STOVE COMPANY . . . General Sales Offices and Plant: Gardner, Mass. Western Sales Offices and Plant: Kankakee, Ill. Southern Plant: Lewisburg, Tenn. Other Sales Offices: One Park Avenue, N. Y.; 1459 Merchandise Mart, Chicago; 53 Alabama Street, S. W., Atlanta; 301 No. Market Street, Dallas.



Chas. Dougherty



Chas. B. Seidenglanz

straighten out our industry or we are going to be straightened out by officials and severe legislation. You should have regular safety programs and teach your employees all they should know about LP-Gas . . . We must make operations more efficient if we are to compete.

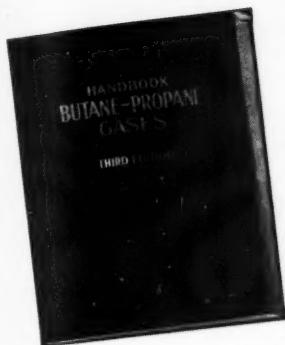
Charles Dougherty — Safety is your individual problem. Do you as dealers understand this problem and properly instruct your employees? . . . Is your equipment approved, properly protected and in perfect shape? . . . Do you have correct fire extinguishing equipment? . . . Insurance men say two-thirds of the accidents originate with the delivery trucks and transports . . . Most accidents are caused by failure to follow regulations.

Texas Regulations May Affect Appliance Installations

The effect on gas appliance installations of proposed LP-Gas regulations by the Texas Railroad Commission was considered at a meeting of representatives of the Gas Appliance Manufacturers Association held Aug. 25 at the Statler hotel, St. Louis.

Upon the suggestion of the Texas Commission, a committee was selected to make recommendations concerning the proposed regulations at a hearing of the commission Sept. 29 in Austin, Texas. The recommendations of the committee were presented to the Railroad Commission of Texas by William Lawson, executive secretary of the Texas Butane Dealers Association.

The committee is composed of Lee A. Brand, chairman; W. A. Coleman, Keith T. Davis, F. R. Fetherston, Arthur C. Kreutzer, R. O. Montrieff, I. P. Newby, John Knox Smith, Art Theobold, and H. Leigh Whitelaw.



The HANDBOOK

Butane-Propane Gases

**Up-to-date technical facts
on LP-Gases.**

**352 Pages. Illustrated with
Charts, Diagrams and Pho-
tographs.**

I took this partial list of contents.

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Handy Tables for Field Use
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In California add 13c for sales tax.*

BUTANE-PROPANE News

1709 West Eighth Street

Los Angeles 14, California

State Association Representatives Decide Upon Advertising Campaign

By O. D. HALL

AN ambitious advertising campaign based at the general sales level was adopted for dealers in 22 states which have organized LP-Gas associations through the representatives of those organizations meeting at Oklahoma City, Okla., Sept. 7. The meeting was held on the day before opening of the annual convention and trade show of the Oklahoma LP-Gas Association.

The Council of LP-Gas Associations, upon recommendation of its advertising committee, adopted a motion to engage the Vernon Beals Advertising Service, of Oklahoma City, to launch at once a "package" advertising service intended to sell the idea of better living through the use of LP-Gas for the big jobs of heating and refrigeration in two million homes beyond the natural gas mains. The firm announced that it would have the "packages" ready to send out to dealers who ordered them, by Jan. 1 of next year.

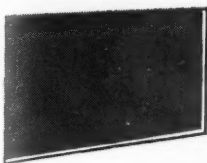
In the meantime, at the request of the Council, the advertising firm will also present its program to the advertising committee of the national Liquefied Petroleum Gas Association to be considered for adoption by that organization on a national basis. Whether or not the national association adopts the program, the Council of LP-Gas Associations at Oklahoma City pledged to underwrite the first three "packages" or three months of advertising copy preparation after which it will be up to the advertising firm to sell it to dealers on a basis to fit the needs in each individual state.

The general idea is to meet the competition of the electrical industry which is carrying on a national advertising program to sell electric service on the farms. The LP-Gas program will not directly seek to sell appliances or systems but to spread the use of the butane and propane gas to more users throughout the nation.

The advertising program will have the active cooperation of the various state LP-Gas associations. Also the advertising committee of the Council of LP-Gas Associations will be continued in force and will cooperate by helping the agency to tailor the advertising copy to particular needs of dealers in each state.

For that reason Council Chairman Wm. J. Lawson, Texas Butane Dealers Association, announced that the advertising committee of the council would be continued in force. This committee is composed of R. H. Mahnke, Wichita, Kan., chairman; A. W. Porter, Little Rock, Ark.; Frank de Gruy, Mobile, Ala.; K. H. Dickson, Moberly, Mo., and R. H. Stinger, Durand, Mich.

The program adopted will include newspaper advertising copy particularly slanted for use in farm publications; "spot" radio advertising consisting principally of minute and one-half-minute recorded announcements, direct mail advertising and attractive posters for the dealer to display in his offices. These will concentrate on the



PANELRAY

a space heating masterpiece

Radiating clean healthful infra-red rays throughout the room area, Panelray provides the superior head-to-toe comfort of radiant heating. It is completely vented to prevent the formation of moisture on windows or walls.

DAY & NIGHT

Day & Night Butane appliances are exported by Anchor Oil Co., Houston, Texas

DAY & NIGHT MANUFACTURING COMPANY
Monrovia, California • One of the Dresser Industries

Sales are Easier

when you offer your customers NEW 1948 COMPLETELY AUTOMATIC TAPPAN LP GAS RANGES

In what other range can you offer your customers such a complete line of NEW models—such an array of *features they want?*

TAPPAN EXCLUSIVES!

- Valve "on" indicators for top burners
- Oven "on" indicator
- Pyroglas plates on two burners make this the only range with two types of heat
- Concealed oven venting
- Wrap-around, one piece chrome oven lining
- Visiminder timer
- Visiguide cooking chart

... PLUS new streamlined beauty in gleaming enamel with all edges and corners rounded that make Tappan the easiest to clean and keep clean range.

Yes, read that list again, and then answer the question yourself—"Where else but in Tappan can I offer my customers such a complete range package?"



THE
TAPPAN
STOVE COMPANY
MANSFIELD, OHIO



For 66 years
makers of fine
ranges

important place held by LP-Gas for better living, particularly in connection with water heating, cooking and refrigeration, and on space heating in parts of the country where it is more generally used for that purpose.

Officers of the Council of LP-Gas Associations are William J. Lawson, Austin, Texas, chairman; R. H. Mahnke, Wichita, Kan., vice chairman, and Fred L. Yates, Oklahoma City, secretary.

Oklahoma Convention

Delegates to the Southwest LP-Gas Convention and Trade show at Oklahoma City, Okla., Sept. 7-10, were warned that shortages of LP-Gas might occur again during the coming winter at periods of peak demand. Some encouraging signs that the shortages may be less severe next year and during 1949 were cited by Howard E. Felt, vice president, Warren Petroleum Co., who sounded the warning.

After a series of general talks at morning sessions, technical and practical operating problems came

in for a thorough airing during an afternoon question and answer panel period. A panel of 12 men, practical operators and engineers, assisted Frank De Larzelere, Southern Gas & Equipment Co., Tulsa, in conducting the period which occupied more than two hours.

Fred L. Yates, Oklahoma LP-Gas Association executive secretary, presented a number of safety buttons and certificates to about 80 drivers of about 35 companies who had made exceptional safety records during the past year.

Iowa Dealers Will Meet Oct. 20 in Davenport

The next meeting of the Association of Iowa Marketers of LP-Gas will be held at the Blackhawk hotel, Davenport, on Monday, Oct. 20, according to an announcement by W. R. Christopherson, president.

No exhibit of equipment or appliances is scheduled, but a full program of speakers is planned.



Opening session of Oklahoma LP-Gas Association Convention and Trade Show with Francis J. Borelli, president, presiding.

NEW PRODUCTS



Domestic Range

Tappan Stove Co., 250 Wayne St.,
Mansfield, Ohio.

Model: XV67.

Application: For use in domestic kitchens.

Description: This Tappan LP-Gas model includes among features automatic oven control, concealed oven venting, two electrical outlets, concealing dial controls, oven "on" indicator, drip trays, top burner indicator lights, and "Pyroglas" plates.

Dimensions are 40 in. length, 26 $\frac{3}{4}$ in. depth, and 36 in. height. The body is built flush to the wall in welded one-piece construction, with porcelain body sides, and new front radius.

The cooking top is divided into deep rectangular grates. The top burners, in chromelite finish, are one giant, one "mighty-mite," and two standards; equipped with four lock-type

simmer valves, chromelite reflector trays, and removable porcelain drip trays. The visualite oven, which is 17 in. x 20 $\frac{1}{4}$ in. x 15 in., has ribbon-type non-tilting racks, five oven rack positions, porcelain sani-clean oven liners, and a removable oven bottom tray. The broiler is equipped with a silent, one-piece, ball bearing drawer, and a clean-quick broiler pan. Wire shelves in compartments are adjustable.

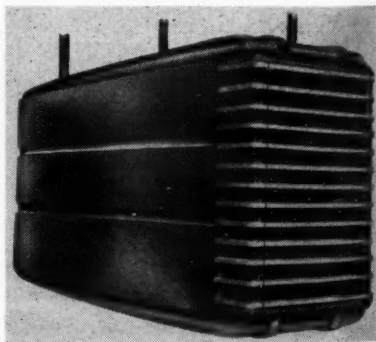
Suspended Heater

Naco Manufacturing Co., Hunting-
ton Park, Calif.

Model: Pacific Suspended Heater.

Application: Commercial and industrial heating in stores, auditoriums, theatres and plants.

Description: All working parts of this overhead heating unit are enclosed in the body. Boilers, central



heating system, ducts are eliminated, and floor space saved for commercial use by overhead suspension. Its designing also makes the heater ideally suited for use in installations where interior decoration is an important factor.



Sediment Strainer

J. A. Zurn Manufacturing Co., Erie, Pa.

Application: This product was designed to meet the demand for an economical strainer in pipe lines where continuous flow is imperative. When the strainer is to be cleaned, flow can be diverted from one basket to the other without interrupting passage through the strainer.

Description: The unit operates by means of a single plug-type valve whose orifices direct flow from the inlet to either basket, or both simultaneously. The seating of the plug into the body is regulated by the relieving yoke which acts to seat the plug

tightly for sealing, or to loosen it for turning, as required. Plug action is positively non-freezing and operates freely and easily at all times.

Dual air relief valves are regularly furnished, available with flanged or screwed connections, and suitable for working pressures from 125 to 300 lbs. A basket chamber cover yoke assembly, or C-washer type, bolted cover assembly is furnished as required. Both types are quick releasing. Made of bronze, steel, semi-steel or special alloys to specifications. Sizes 1" to 6" regularly; larger sizes to order.

Radiant Circulator

Chattanooga Implement & Manufacturing Co., Chattanooga, 6.

Model: Royal Gas Radiant Circulator No. 720.

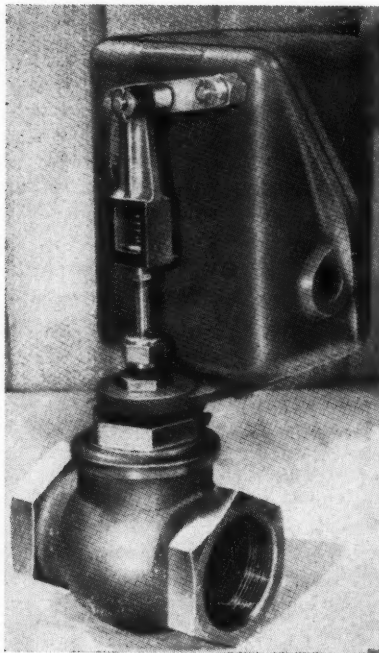
Application: Domestic space heater.

Description: Finished in neutral brown-baked enamel, this gas radiant circulator is trimmed and louvered in special alloy steel which will not tarnish, corrode, or rust. According to tests conducted by the company, the heaters have been operated at full blast 24 hours a day for several



months without the cabinet showing discoloration.

On all models except the smallest, the heater valve is concealed. A large lighter door permits burner lighting and adjustment. Floor contact at three points assures stability. Approved by the AGA, models are available with input ratings from 15,000 Btu to 30,000 Btu.



Motorized Valve

Automatic Temperature Control Co., Inc., 34 E. Logan St., Philadelphia 44.

Application: The new unit, especially adaptable for commercial machinery and equipment; heating and air conditioning systems; and heating and cooling coils, provides automatic

two-position (on-off) operation of valves for steam, air, gas, oil or water.

Description: A rugged induction motor develops a positive power-drive through a worm and spur gear reduction. Adjustable limit switches are designed for trouble-free service. The cast iron housing is dust-tight and splash-proof with all parts easily accessible. Electrical connections are made to a terminal block; half-inch threaded conduit provided. Requires a 3-wire thermostat, pressure switch or other similar instrument for actuation. Operates from either 24, 110 or 220 volts, A.C. power source.

Valves supplied are: Globe-type, all bronze, either single or double-seated in sizes $\frac{1}{2}$ in. to $2\frac{1}{2}$ in. screw-end connections; butterfly valves, iron body, bronze trim in sizes 1 in. to 4 in. either screwed or flanged ends.

Forced Air Furnace

Kilbury Manufacturing Co. 14529 Hawthorne Ave., Lawndale, Calif.

Model: Speedheater, Models 10, 12.

Description: The "Speedheater" is a fully automatic, forced air, gas fired house heater. It is built along the lines of a floor furnace as far as outside construction is concerned and is installed in the floor in much the same manner. The grills which are the only part showing above the floor, are made of heavy cast aluminum polished to a brightness resembling chrome plating.

The working part of the furnace is said to be a radical departure from conventional designs. Air is pulled through burner by specially constructed blower, putting a forced draft on burner, and producing complete combustion with a high degree of efficiency.

Cold air is drawn into the furnace

Millions of Ads
Like This Sell the
UNIVERSAL
"L-P" GAS RANGE

for You!



GAS
Still the **UNIVERSAL**
Selection of Cooking
Perfection



White for
invaluable Free Builder



For 76 Years the
UNIVERSAL
Selection of
COOKING
PERFECTION

UNIVERSAL
"L-P" GAS RANGE

When you want a tender, delicious roast to ready for your family, the Universal "L-P" Gas Range is the best to turn out. The "L-P" Range is designed to give you perfect results. The best temperature cooking method even on the toughest of meat tender and requires strict attention to an absolute minimum.

But that's not all! There are dozens of other Universal features that save you time, work and money. And remember, nothing costs LP GAS for the universal, the step in today at your "L-P" Gas distributor to see the complete line of Universal "L-P" Gas Ranges... also designed for use with City gas.

CRIBBEN & SEXTON CO.
Dept. 6-700 South Wacker Drive, Chicago 12, Ill.

- .. *Because* they tell the UNIVERSAL L-P Gas Range story the year 'round in every field.
- .. *Because* they tell it in big space and in color in these leading magazines.
- .. *Because* they're especially designed to stimulate your sales.

L-P GAS
The Preferred
Fuel

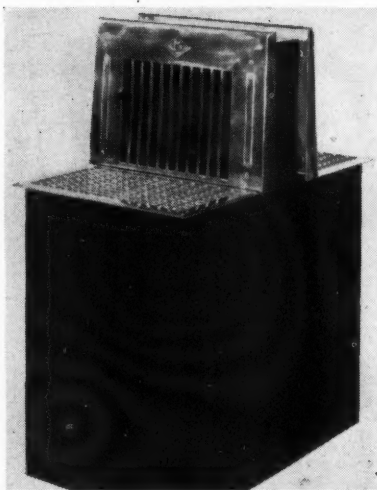


UNIVERSAL
The Preferred
L-P Gas Range

CRIBBEN & SEXTON CO.
UNIVERSAL Gas RANGE
700 N. SACRAMENTO BLVD CHICAGO 12, ILLINOIS

UNIVERSAL PERFORMANCE PROVES L-P GAS HAS GOT IT

OCTOBER — 1947



from cold air grills on the floor on the inside of the house. The blower pulls it by the burner and it is returned to the room through the hot air grills under forced air. In hot weather the blower can be used to circulate air through the house.

The "Speedheater" is unvented. It is claimed that combustion is so complete that no fumes or smoke get into the room. The heater has been tested and approved by AGA for natural, manufactured and LP-Gas.

Specifications: 40,000 Btu per hour. Burner is made of heavy cast iron. Motor is 1/6 hp., ball bearing, heavy duty. Installation—same as conventional furnace except that no vent is used. Model 12 fits into ordinary thickness of wall.

Statometer

Davis Emergency Equipment Co., Inc., 112 Halleck St., Newark, N. J.

Model: Statometer.

Application: For use in locating the source of static electricity.

Description: This portable, self-contained electric instrument is calibrated in terms of static volts and is sensitive enough to detect static charges on the order of fractional volts, either negative or positive. Provided with a 2-position scale range switch, it is possible to measure any voltage from 0 volts to 750 volts.

According to the manufacturer, the operation of the "Statometer" is extremely simple. The operating switch is turned on; the range switch is turned to the low range position and balanced to zero. When the machine comes in the vicinity of a body charged with static electricity, the needle of the meter will start to fluctuate, indicating that the area has within it a charged body.

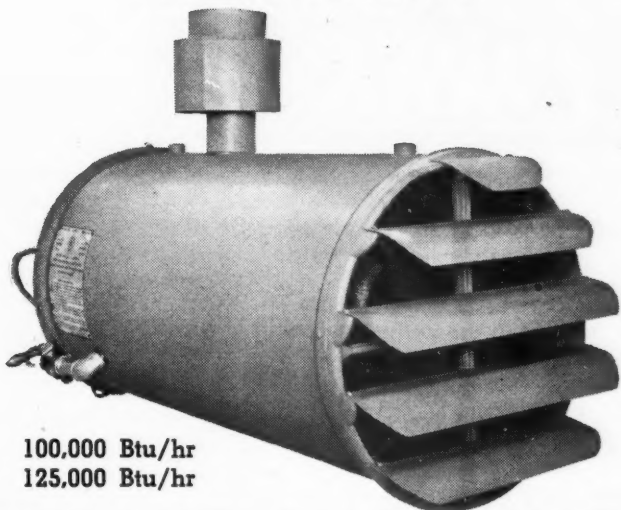
This instrument measures both above and below the sparking voltage and is fast in operation. Its low input capacity and high input resistance contribute to the accuracy and reliability of the readings obtained, and provide a true evaluation of the static charge up to 750 volts.

Size of the instrument is 10 3/4 in. high by 4 1/4 in. deep by 6 in. wide. The weight is 5 lbs., 10 oz.



BUTANE-PROPANE News

JOHN ZINK'S



100,000 Btu/hr
125,000 Btu/hr

NEW UNIT HEATER

A. G. A. APPROVED FOR LP GASES

This new and unique design in suspended space heaters features: More Head Room—Compact Design—More Heat from gas burned—Less Noise.

Where floor space is at a premium this turbine type unit has greater heating capacity. Controls are built-in.

Unit is shipped completely assembled ready for installation.

One unit will heat a 40' x 80' space. Louvers adjustable by rotation. Available in 3 colors—Red, Grey and Brown crinkle finishes.

CONVERSION BURNERS and FLOOR FURNACES

Write for Literature

JOHN ZINK COMPANY

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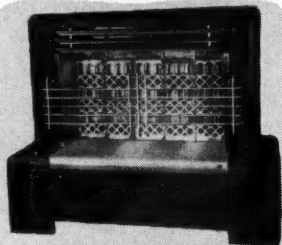
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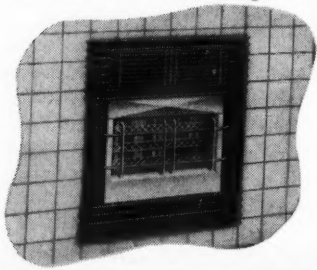
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Forms for Dealer Operations Will Be Standardized

By W. W. McCARTY

Director of Research, Ross-Martin Co., Tulsa, Okla.

HAVE you ever stopped to wonder why so many small companies go out of business, or why the chances of survival of a new business are so slim? Although other factors may have been responsible, an appraisal of almost 500 bankrupt businesses disclosed that 75% of them — three out of four — had inadequate record-keeping systems. In Missouri, 28 out of 30 firms that failed had faulty business records or no records at all.

What does that mean? Well, it means this: Records are forms, and while every business man tries to get along with as few forms as is possible, here we have 28 out of 30 companies that went broke having either not enough or the wrong kind of forms, or no forms at all. It goes beyond saying that this was undoubtedly one of the factors contributing to the failure of those firms.



W. W. McCARTY

Standardized forms are badly needed in the LP-Gas industry. Many dealers are at a loss to find patterns for their forms and find individual printings tedious and expensive.

The accompanying paper, read at the St. Louis convention of the National Butane-Propane Association, reveals a plan which is under way whereby an experienced firm, after surveying the industry's needs, will print needed forms in bulk and make them available to dealers everywhere. The author, W. W. McCarty, is recognized as an authority on forms design and office procedures.—Editor.

Proper record-keeping, more than any other factor, increases *YOUR* chances of having a highly successful business.

The small businessman, as well as the big businessman, must be fully equipped with the "tools" necessary to reach maximum efficiency in his record-keeping. He must learn to look upon all the pieces of paper in a business, known collectively as forms, as nothing more or less than the tools of getting the office work done.

You are reviewing and studying financial statements, sales reports, invoices, purchase orders, inventories, etcetera, day in and day out. Without these pieces of paper

—forms—or tools—you could not plan intelligently, you could not reach sound conclusions, and you could not take the actions necessary to make, and keep, your business successful and profitable. So, I believe we can logically conclude that forms are also the tools of your profession—that of running the business.

Many Forms "Just Happen"

It is rarely the case where any one individual in the office has the responsibility for the procurement, usage, or maintenance of the tools of the office—the forms being used. As a result, forms come into existence without much, if any, planning or forethought, and oftentimes without much consideration of how or where or by whom they will be used. Once in existence they seem to stay in existence. Although the whole complexion of the operations may change, it is seldom that the forms relating to those operations keep pace, and you have a fertile spot for a business failure.

We are talking about "Modern Forms for a Fast-Growing Industry." Now just what are "modern" forms? When this term "modern" is applied to forms, many considerations immediately come within contemplation:

1. Certainly a "modern" form would reflect current operations efficiently.
2. It would dovetail nicely into the use of all other forms making up the set of office tools of which it is a part.
3. It would carry the latest innovations in forms design for its most efficient use and most economical reproduction.
4. It would take advantage of the

most efficient of the many office machines and office aids available in the particular business organization.

Now that we have taken a look at "forms," and more particularly, "modern forms," let's see where we stand. What do you think that the rapid growth of the LP-Gas industry means to your office expense?

In the first place, with growth the office expense will probably rise. The major question seems to be—how much will it rise?

I think we can find a clue to the answer by taking a look at the American industrial picture as a whole. Ten years ago about one out of every 10 workers was an office worker. Today three to four out of every 10 workers are office workers. This appears to be an exceptionally high increase.

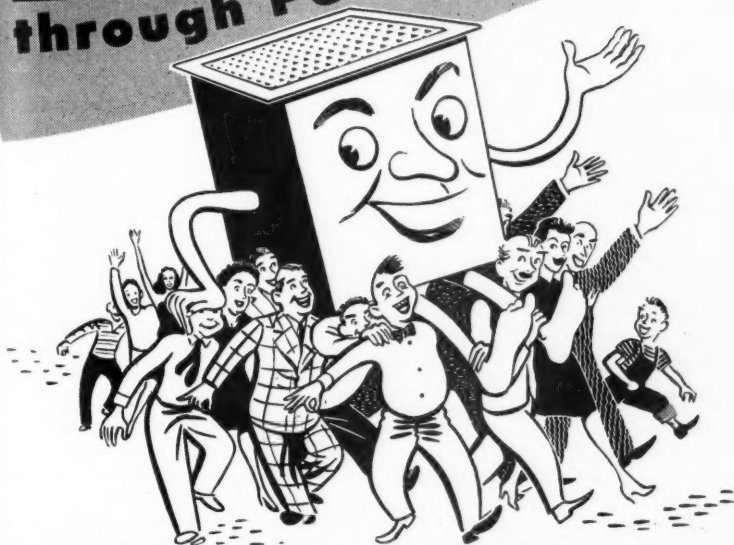
Got Information First Hand

Let's tie this same picture down to the butane-propane industry. I recently traveled over 2000 miles visiting a number of representative dealers of your industry. I sat down and talked with these men about their operations, their forms and internal procedures, and their operating difficulties from an office point of view.

One of the questions I asked most every one was, "How much have your office overhead costs increased in the past 10 years in relation to total sales volume or total personnel on the payroll?" You are going to be surprised when I tell you the answers I received.

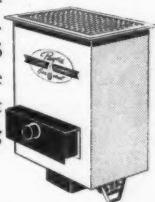
Only two of those to whom I talked indicated that there had been no disproportionate increase in his office costs. As for the others, estimates of increased costs varied from "just a little" to "double," and "tripled." A few of these men indicated some of the reasons they believed were re-

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You cannot buy (or sell) a better furnace than a

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PAYNE FURNACE COMPANY
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BEVERLY HILLS, CALIFORNIA



sponsible for these increases. Higher wages for office personnel headed the list; but reduced output per worker was not far behind. Others brought out the fact that many of their records and office operations were the result of the laws of the land, and pointed to their records for withholding taxes, social security taxes, and personnel, as examples.

This is just a simple illustration of the well-known fact that growth, particularly rapid growth, usually carries inefficiency with it. We all know that if we're going to make money, these inefficiencies have to be corrected, and almost invariably the correction starts in the factory or production end of the business. In the office, however, these inefficiencies are usually met after a considerable time lag. And surprisingly, few business men seem to realize that the forms and internal operating procedures being utilized may have any appreciable effect on the rising office expense in his operation.

Ask These Questions First

The questions immediately arising are: What exactly is the problem? How do we approach it? Where does it start and where does it stop? Is it temporary or permanent? What is there to guide us in its solution?

First, all your personnel and all your office machines are engaged in working with forms. Apply your clerical force, with its machines and equipment, to these pieces of paper and you have the output of the office—not in terms of finished goods that can be sold at a profit—but in terms of general expense which must be recovered in the sale of goods or services before a profit can be shown. It follows, then, that if you would find out what is going on in your office, gather your forms together and ana-

lyze them. They alone can give the picture of your office operations.

The point, then, is simply that to control forms, you control your office expense. And this brings us to the study that is presently being made of the forms of the butane-propane industry, and the things which are hoped to be accomplished by the study.

Shortly after the first of this year, a representative of the LP-Gas industry approached the Ross-Martin Co. with the suggestion that it make a study of the forms of the industry.

NBPA Gave Needed Help

To help us make the study, the industry has to tell us what it is they do and how they go about doing it. As a result we approached the National Butane-Propane Association. Our letter to E. E. Hadlick, executive vice president of the association, brought an immediate, favorable reply.

A letter was prepared and sent out by Mr. Hadlick to a number of the association's members, asking for samples of all of their forms. These samples were in turn sent to us for study purposes. Today we have over 800 forms representing over 60 companies in 23 states.

As the samples of the forms reached our offices, we analyzed and classified them in such a manner as to get all forms of a similar type together. We like to call this arrangement a "functional" file because all forms are classified by their purpose, or function, and the subject with which it deals.

To study a given type of form in detail, we check off the information called for on all of the samples of that form received for study, and can conclude upon what is required on that form for the industry's use. To study procedure we review all the forms having to do with a particular

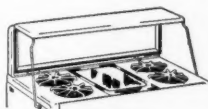
LOOK TO THE FUTURE NOW!



ANY WAY you look at it—design, exclusive features, performance or customer preference—the O'Keefe & Merritt Gas Range is the line to sell. For more than a Quarter Century, wherever they are sold, O'Keefe & Merritt Gas Ranges have been the choice of women who take pride in their cooking.

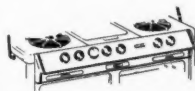
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Handy, *step-saving* utility shelf that really vanishes when not in use!



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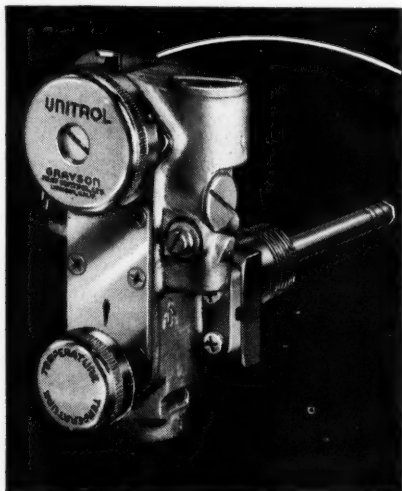
Visible, fast, finger-tip control makes broiling easier than frying.



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Grayson and Robertshaw Unitrols use the Ideal Combination of metals*—

1. Red brass in contact with water.
Proven ability to resist water corrosion.
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Excellent resistance to sulphur-containing gases—
proven over more than 12 years' experience building aluminum thermostats.

GRAYSON CONTROLS

DIVISION ROBERTSHAW THERMOSTAT CO.
LYNWOOD, CALIFORNIA

** Two-piece design permits aluminum gas valve body and brass immersion connector coating.*

subject, which in turn usually represents a given phase of the operations. As a key to all of these samples, and a control upon us as we study and analyze them in terms of procedure, we make a master list of all the samples by the purpose of the form and the subject with which it deals. In this manner we preclude overlooking any piece of paper that might tie into a given phase of the operations.

Now if we were familiar and experienced in the operating problems and difficulties of your industry as any of you, we could take those samples and start our design work and procedure study. But we aren't. You know that industry and its problems, we know forms design and control. But we can't get all the answers from the forms you have submitted.

While we can get a good insight into the industry, and see generally what the forms picture represents in operations and procedures, we find

that we must still do what we call "field research." Field research is nothing more nor less than visiting a number of representative companies of the industry, sitting down and discussing the usage of the forms existent in that business organization. A number of such visits will pattern those internal operations very nicely, and will give us the information we need. Then we sit down to design forms to meet the needs of the industry as evidenced by the forms of the industry and the information gained by our research.

Now what does all this add up to? It adds up to this: That instead of being one of those 28 out of 30 firms that went broke with faulty records, or no records at all, your association is making it possible that you keep the right kind of records to help you stay in business and make a profit, without loading you down with a lot of unnecessary paper work.



The Pierce Propane-Butane Co., Okla., has taken delivery of this 4727-gal. transport truck, which was built by Black, Sivalls & Bryson, Inc., Kansas City. Grover Pierce is owner of the new transport.

Tulsa "U" Short Course Attendants Learn Rudiments of LP-Gas Industry

A PANEL of instructors selected from the industry supplied a great deal of interest-stimulating information to LP-Gas men gathered for an appliance short course at the University of Tulsa, Sept. 3-5. Subjects of discussions covered a wide range—and many of the authorities dipped into their personal experiences to salt their material with money-making, life-saving, and work-economizing service and sales tips.

Among skillful papers delivered at the three-day session was Ed Johnson's address on the "Calculation of Heat Losses," a full account of which begins on page 75 of this issue of the *BUTANE-PROPANE News*. Mr. Johnson, a representative of The Coleman Co., Wichita, Kan., explains in full his company's method of figuring heat losses with the aid of illustrative tables that will be of value to LP-Gas dealers making heating system installations.

John Knox Smith, the LPGA's safety engineer, continued his nation-wide speaking tour with a talk on "Safety Precautions" before the Tulsa school assemblage.

Among other discussions presented at the short course was a paper entitled, "Proper Installation Principles," by J. Woodward Martin, vice president and general manager of the L.P.G. Equipment



F. N. HAVENS



CARL H. DEAN

Corp., Dallas, who discussed in detail the installation of consumer systems. He was particularly concerned with the increase in the use of butane as a fuel, but stressed the importance of installing vessels built to stand propane pressures so that users may avail themselves of either butane or propane.

Important factors that Mr. Martin believes should be considered in determining the proper size of a tank: (1) The annual consumption that each customer is expected to use; (2) whether the load is a uniform one (such as for cooking), or whether it varies with high and low seasonal peaks and valleys (such as for cooking and househeating or for househeating only); (3) how far the operations are from production and the safe interval between shipments; (4) how far the customer is from the distribution center or bulk storage; (5) what the road condition is right up to the service tank, and the extent to which

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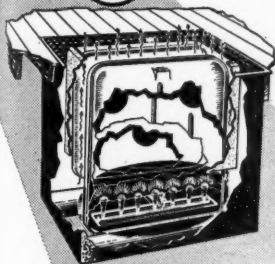
APPLIANCES are Quality BUILT

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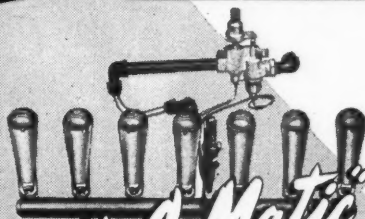


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FLOOR FURNACES

Adaptable to any type home—old or new, and to any gas supply. Vented. A. G. A. approved.

No. 25-46... 25,000 BTU Input
No. 40-46... 40,000 BTU Input
No. 50-46... 50,000 BTU Input
No. 65-46... 65,000 BTU Input



"Thrift-O-Matic"
Gas BURNER
DEVELOPED BY EMPIRE

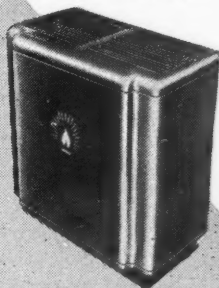
makes the difference!

New EMPIRE

CIRCULATOR HEATERS

New streamlined beauty, efficiency and economy. Burns any type of gas. Vented. A.G.A. approved.

No. 825... 25,000 BTU Input
No. 840... 40,000 BTU Input
No. 850... 50,000 BTU Input
No. 860... 60,000 BTU Input

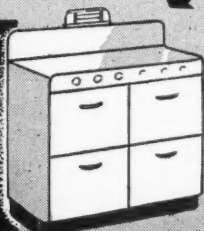


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MANUFACTURERS OF GAS HEATING & COOKING APPLIANCES



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EMPIRE Gas RANGES

Watch for further announcements. It's new in engineering, new in cooking efficiency and fuel saving—and superb in streamlined beauty. Worth waiting for!

EMPIRE Leads in the Development of Appliances for L-P Gas

weather conditions affect its passability for the delivery truck; (6) who decides when and how much LP-Gas shall be dumped into the service tank, the gas man or the customer, and (7) whether or not the delivery system employed will permit the proper use of the tanks after their proper size has been determined.

Substantial Reserve Needed

In conclusion on the subject of proper size of domestic tanks, Mr. Martin had this to say to the Tulsa class: "A rule-of-thumb established by one old operating company is that the storage capacity for all fuel requirements in the home, including househeating, should be equal to the three heaviest months of consumption, January, February and March. Assuming the gas is to be used for cooking only, with the condition that the dealer has the decision to determine the amount of gas to be delivered, tanks of a storage capacity equal to one year's consumption would permit low cost bulk deliveries. . . .

"In order to further prepare our customers for the use of all grades of LP-Gas at any time," he continued, "the yard line and piping must be installed so as to eliminate all hazards and interruptions of service due to condensed liquid butane in the piping system. When mixtures are used, the lighter fractions boil off first, leaving normal butane, so that even with propane mixtures every installation will have to handle normal butane at one time or another." This involves certain principles:

1. Use a thread compound that will not be harmfully affected by liquid butane.

2. Install the piping so that the minimum is exposed to the elements and suitably insulate all piping that must unavoidably be exposed to sub-freezing temperatures.

3. Lay all piping to grade (about 1 in. to 10 ft. minimum), so that any condensed liquid will drain to a condensate drip located at lowest point in the system and be revaporized. Properly support the piping so that it will retain this grade without sags or drips.

4. Make all connections to the main supply line, such as lateral lines to individual appliances, on the top or side of the main supply line and never on the bottom of a feed line.

5. Bury the yard line well below the frost line which means that it should never be closer to the surface of the ground than the water lines at the particular location.

Another Tulsa short course speaker brought in a rule-of-thumb measurement to enlarge on his subject. Carl H. Dean, of the Heating Research Corp., Muncie, Ind., determines the quantity of air required where gas is used as fuel at a minimum of 20 cu. ft. for every 1000 Btu input of the appliance to be vented. His talk on the "Principles of Proper Venting" hit on the following points:

- (1) See that sufficient air for combustion is available at the appliance.
- (2) Masonry chimneys must have linings without offsets.
- (3) Masonry chimneys must extend from grade to a point 2 ft. above any structure within 15 ft. of the chimney.
- (4) Masonry chimneys must be without any side exposed to weather or unheated space

1^{st.} - IN POPULARITY



Garland Restaurant
Range No. 82



Garland Restaurant
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Garland Restaurant
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Garland
Restaurant
Range No. 83

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All these benefits can mean better cooked food . . . lower fuel cost . . . greater employee efficiency . . . and a lower cost per meal! Always—it's the considered judgment of customers who put the leader in first place. Be guided by those thousands of customers who have chosen Garland. Available for use with either butane or propane gas.

These models also available in stainless steel.

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HEAVY DUTY RANGES • RESTAURANT RANGES • BROILERS • DEEP FAT FRYERS • TOASTERS
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Products of Detroit-Michigan Stove Co., Detroit 31, Michigan

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WELBILT
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EST CONVENIENCE
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WELBILT STOVE CO., Inc., Maspeth, L. I., N. Y.

for its entire length. (5) Masonry chimneys must be provided with clean-out below vent connection. (6) Each flue, regardless of type, shall be used for venting appliances from only one floor level. (7) Type "B" flues shall be insulated where passing through attic spaces. (8) Offset flues must have 1 in. mesh hardware cloth cones to prevent birds nesting therein. (9) Attic crossovers of Type "B" flues must maintain the steepest possible pitch. Never less than 45 degrees. (10) Use no flue smaller than 4 in. diameter or equivalent effective cross sectional area for venting water heaters. (11) Connect vents to flues by means of thimble or fittings designed for this purpose. (12) Maintain a continuous rise in vent pipes of at least one-half inch per running foot. (13) When right angle lateral turns in vent pipes are unavoidable, use two 45 degree elbows with 2 ft. of pipe between. (14) Provide rise in all elbows used. (15) Insulate all vent pipes in unheated spaces. (16) Use only such types of rain caps as do not obstruct passage of flue products. (17) Maintain equivalent effective cross sectional area of the draft diverter opening to the termination of the flue.

F. N. Havens, vice-president of Union LP-Gas Systems Inc., talked on the "Filling of Consumer Systems" during the Tulsa short course. As well as outlining the item-by-item procedure for safe dispensing of the fuel at domestic storage tanks, Mr. Havens stressed the need for intelligent design of trucks. Among his remarks:

"Chassis should be built to handle the load. Piping should be steel welded with properly designed valves. Ex-



J. W. MARTIN



WM. F. LOWE

haust from muffler should be in safe location. Raincap-equipped vent stacks should be installed on all relief valves . . . tanks and accessories should be properly retained while the truck is in transit. Truck should be equipped with proper fire extinguishers . . . should be grounded at all times . . . and should carry a hose with not less than 350 lb. working pressure."

C. C. Dudley, Skelly Oil Co., Kansas City, confined his discussion on "Burner Adjustment" to stoves and water heaters to explain general principles which can be employed on adjustment of all appliances. He enlarged on the regulation of flash tubes and pilots. His concluding statement:

"With most appliances, it is only necessary to provide the proper location of the appliance, the correct gas input, and the correct amount of primary air to the burner."

Additional instructors and their subjects:

E. W. Evans, Phillips Petroleum Co., "Properties of LP-Gas."

Harold W. Smith, American Liquid Gas Co., "Combustion Principles."

W. F. Lowe, Natural Gasoline Asso-

ciation of America, "The Future of the LP-Gas Industry."

T. W. Coover, University of Tulsa College of Business Administration, "Customer Relations."

Hubert Leaf, Hales-Mullaly Co., "LP-Gas Refrigeration."

George A. Short, Hotstream Heater Co., "Water Heaters."

J. E. Robb, Minneapolis Honeywell Regulator Co., "Care of Thermostats."

J. L. Graham, Pressed Steel Tank Co., "Cylinder Testing."

Norman Paquin, Weatherhead Co., "Automatic Control Valves."

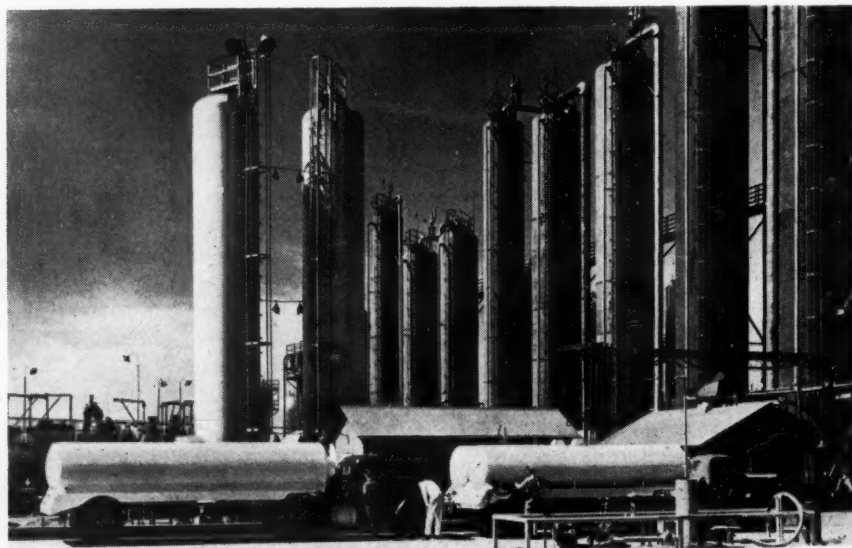
Ralph Engstrom, The Bastian-Blessing Co., "Selection of Proper Equipment to Meet Consumer Needs."

Other lecturers: Ralph G. Abbot, Ensign Carburetor Co.; Ralph Eng-

strom, The Bastian-Blessing Co.; Paul Guth, Weatherhead Co.; J. D. Eckles, The Coleman Co.; Gordon Walton, John E. Mitchell Co.; Edwin Kahler, American Stove Co.; Allen Estrada, Southern Heater Co.; M. P. Noll, Servel Inc.; Joseph Ziemann, Ansel Chemical Co.; Melvin Finuf, J. B. Beaird Co.; M. T. Corken, Corken Pump Co.; A. E. Hess, General Controls Corp.

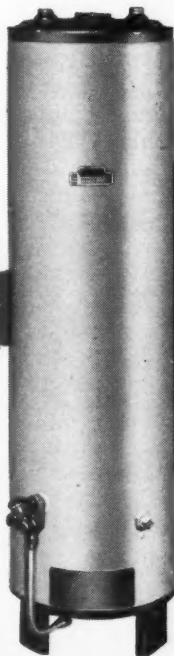
E. O. Mattocks, Phillips Petroleum Co., spoke on "Correct Understanding of NBFU Pamphlet No. 58," the regulations upon which are patterned most of the standard operating procedure for the industry.

The second afternoon of the session was devoted to a demonstration of handling LP-Gas fires with various types of extinguishment equipment.



Tank trucks loading at LP-Gas manufacturing plant.

Around the Clock
 you can **DEPEND** on a
UNITED STATES WATER HEATER



Twenty-four hour hot water service is what your customers expect. For 25 years United States Heaters have been built to fulfill their highest expectations.

Precision built, snap-action dial control thermostats keep the temperature **HOT**. Dependable safety pilot controls keep the flow of gas **SAFE**. Heavy gauge, corrosion protected tanks make the heater **LAST** for YEARS. Thick, snugly fitting blanket of Fiberglas insulation keeps the heater **ECONOMICAL**. Infra-red fired glossy enamel keeps the heater **BEAUTIFUL**.

Low prices and a wide range of sizes make the United States Heater line attractive to Dealers and Consumers alike. Write for latest catalog.

Hot Water Heating satisfaction begins when the United States Heater is installed. This satisfaction builds for the dealer a continuous profitable business that goes far beyond the original water heater sale.



UNITED STATES HEATER CO.

133 EAST PALMER AVENUE

COMPTON, CALIFORNIA



Entrusting Adjustments to Specialist Brings Trouble-Free Truck Operation

By FRED M. BURT

TOO many "chefs" are liable to spoil the broth—whether cooking with gas or servicing LP-Gas-powered motor trucks; especially inexperienced ones. The story of the use of Ensign Carburetor Co. equipment on vehicles served on a butane diet by a large California contracting company is an illustration of the importance of allowing only experienced men to make adjustments and service—and that there ought to be only one "cook" with his finger in the stew.

The Griffith Company of Los Angeles has been building dams, constructing roads, and laying pipe lines with LP-Gas-driven equipment since 1938. It wasn't until late in 1944, however, that the company considered wholesale conversion of most of its vehicles to butane. To make the changeover, Griffith employed Torrance McKinney, a mechanic with nine years of LP-Gas background, to be chief-cook-and-bottle-washer on company use of the fuel. Mr. McKinney has been just that—once he got the other fingers out of the broth.

It wasn't easy. During the first year of Mr. McKinney's experience with Griffith equipment, trucks performed mammoth tasks—on local runs—without developing trouble in their butane carburizing systems. These vehicles were personally serviced by Mr. McKinney, in his own "souping up" kitchen.

In a previous similar position, Mr. McKinney had handled huge truck-tractors which were making transcontinental runs to Chicago, and which were having dietetical difficulties. Their butane mixtures weren't agreeing with them, and they were breaking down on the road.

Mr. McKinney decided to take remedial steps. He asked his superintendent for two weeks leave of absence. "Why," said the latter, "you know I can't spare you for two weeks."

"I want to ride that tractor to Chicago on its next run to see what makes it go haywire. It's strange

that we never have any trouble with it when I do all the work on it. As soon as it gets away from my servicing, up comes the grief."

Mr. McKinney's eastern trip didn't work out, but he had another idea. If he couldn't actually watch his "second cooks," he was going to make sure that they weren't spoiling his carburetor adjustment recipes.

"I want to seal the carburetor and vaporizer," he told the superintendent, "and I want you to tell the driver of that truck he isn't to break the seals for any reason—

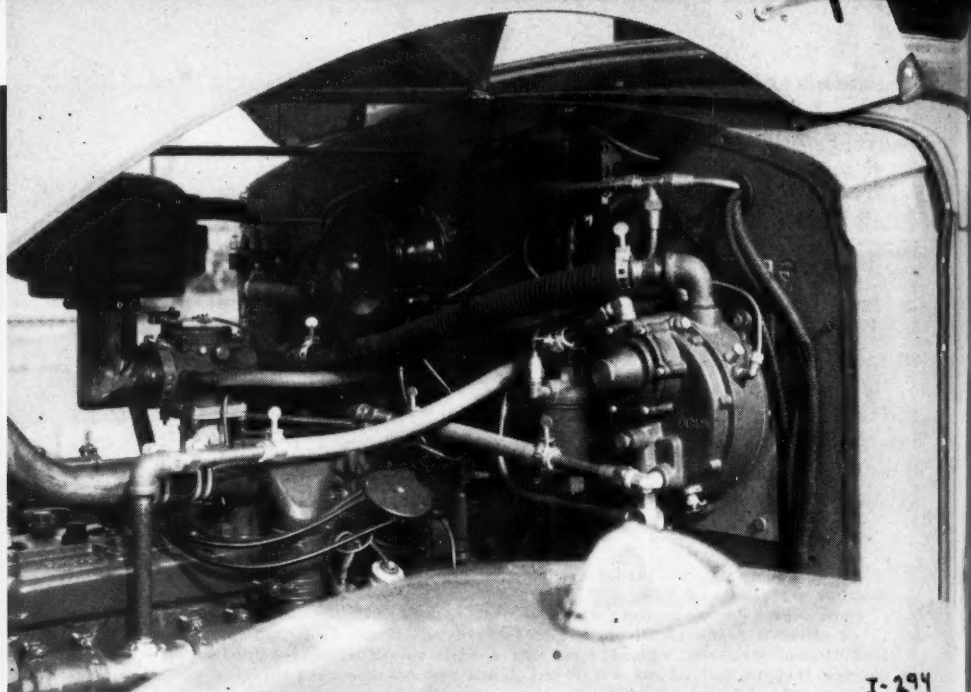
under penalty of being fired. If he has any real trouble with the LP-Gas equipment, tell him to telephone here, no matter where he is."

There was no call. The driver had no trouble. Henceforth, the two LP-Gas-powered units that the company was using to test the advantages of the fuel went forth with seals on carburetor and on vaporizer.

Today Mr. McKinney is in charge of LP-Gas and electrical equipment maintenance for the Griffith Company's divisions in Los Angeles, Bakersfield, Wilmington, and San

White Model WA-26, 7-9 yard rear dump truck; 130-hp engine equipped with Ensign Model R vaporizer and Kg-1, 1 $\frac{3}{4}$ " Ensign butane-propane carburetor. Truck is in front of room where butane-propane and electrical equipment is disassembled and cleaned. Truck driver is Frank La Piana, and in background, left to right, Bud Bailey, assistant to Torrance McKinney, who is examining a starter brought in for servicing. Butane-propane tank at rear of cab has 80-gal. liquid measure capacity, carrying when filled, 71-gal. of fuel with other space for vapor expansion.





Ensign standard model R vaporizer and Kg-1 1 3/4" butane-propane carburetor on White 125-hp engine in Model 26-A, 4-5 yard rear dump truck.

Diego. At his workshop located at the main garage in Los Angeles, Mr. McKinney does the LP-Gas and electrical repair and adjustment work on all the Griffith equipment. Outlying garages, in Bakersfield, Wilmington, and San Diego, are each supplied with a spare Ensign carburetor and vaporizer—adjusted and sealed by Mr. McKinney. Only one of each has been found to be necessary. Some of these lie around for months before being required as replacements.

The Griffith Company now uses Ensign carburetion equipment on more than 40 White 4-5 and 7-9 yd. capacity rear dump trucks

(115-140 hp); on a 1947 Mack, 6-7 yard dump truck (126 hp); on an old Mack B-X; on an old International truck crane, and on a Waukesha-Hesselman multi-fuel, 6-cyl. engine, model EKH (170 hp), used to power a Lima shovel.

The Waukesha-Hesselman engine on the Lima shovel was given a new lease on life when it was changed over to Ensign equipment. The engine wasn't overhauled. The injection pump was just disconnected, and the new equipment installed.

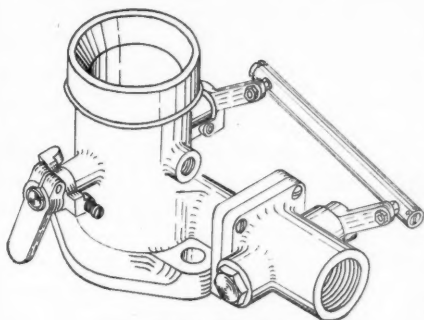
The butane-Hesselman engine has been found to be a great unit for slugging heavy work. With a two-yard clam bucket, it operates by

INTRODUCING

After 10 Years of Research and Development

The Sensational **CENTURY**

3C CARBURETOR



Patent Pending.

The CENTURY 3C Carburetor is made, at this time, only for automotive equipment or industrial engines, where the governor is not attached to the carburetor throttle, or where the governor control can be closed for starting as this carburetor starts on a closed throttle.

- Operates on any liquefied petroleum gas.
- All fuel is metered in proportion to the volume of air and the load.
- Idle or power adjustments made when installed to properly proportion fuel to air.
- **ECONOMIZER** built in—No adjustments.
- Idle unaffected by altitude or weather conditions.
- Once adjusted, no further adjustments necessary.
- May be used singly or in multiple.

NO Springs

NO Venturi

NO Wearing Parts

(except shafts)

3C GIVES YOU—SIMPLICITY, ECONOMY, POWER, DEPENDABILITY

CENTURY GAS EQUIPMENT CO.

11188 Long Beach Blvd., Lynwood, California

barely cracking the throttle just two notches off idling. On one operation, dredging bottom deposits in a dry river bed, the bucket hooked onto buried railroad iron. The engine didn't slow down. The cab just tipped over.

On the remainder of the Griffith Company units, Mr. McKinney estimates that LP-Gas-powered engine troubles were 90% eliminated by the use of lead seals and a "squeezer" with the company's registered seal on it. Every adjustment made on all carburetion equipment, whether new or repaired, is made by Mr. McKinney. Then he seals each unit so no person can change the adjustment without breaking seals.

He is the only Griffith employee

empowered to break those seals—under penalty of severe censure or loss of job. In other words, with the "squeezer" he inoculates the unit against "fingeritis," the same kind of malady which causes the husband, home from a hard day at the office, to tinker with the cook's preparations for evening meal.

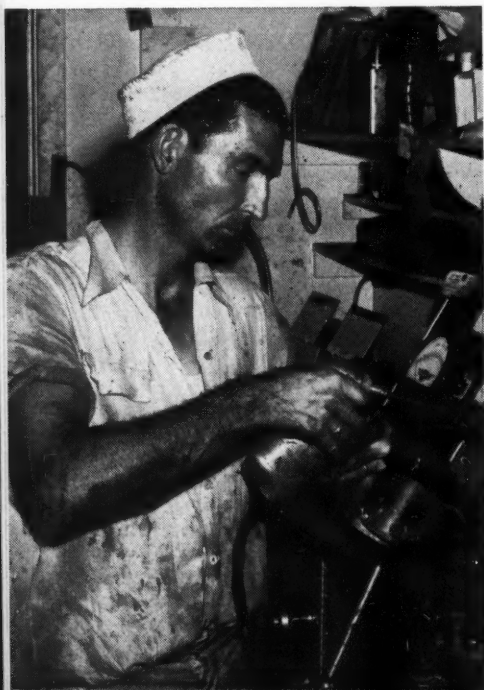
There is only one "chef" at Griffith. His seals serve as a slap on the wrist to persons afflicted with "I-know-how-to-do-it-better" and "Can't-leave-it-alone" probias.

According to Mr. McKinney, the one factor that he cannot control, the damaging of butane-propane equipment, lies in the matter of drivers allowing water in radiators to run low to the point that it does not circulate properly in the vaporizer. When the fuel no longer vaporizes it freezes.

Mr. McKinney has experimented with Ensign equipment specifications, making small adjustments here and there, but has discovered that the carburetor company's methods are best. He makes settings exactly according to specifications and seals the units in this manner:

Three holes are drilled for the lead seal wires. These holes, 3/64" in diameter, seal the vaporizer (1)

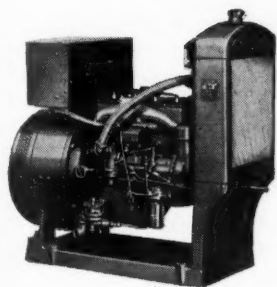
Torrance McKinney, in charge of butane-propane and automotive electrical equipment maintenance and adjustment for Griffith Company, drilling holes with 3/64" drill in an all-angle Sioux drilling unit, for lead seal wires in an Ensign Kg-1 1 3/4" carburetor. Back of him in the crowded workroom, are a generator, magneto, starter, voltage regulator testing machine, and an Allen Electric & Equipment Co., "Synchrograph," used for distributor testing and adjusting.



Where there's light there's KOHLER and . . .



ENSIGN



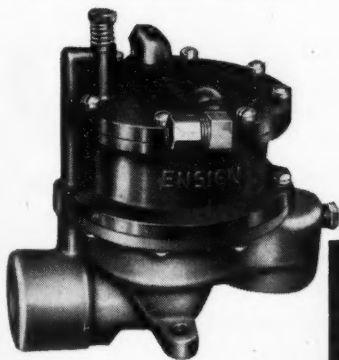
Kohler Electric Plant Model 5EZ

Almost invariably, wherever Butane-Propane is used to provide electric power, ENSIGN Carburetion is employed to assure maximum engine performance and dependability.

Kohler provides complete lighting plant equipment in various capacities. These engines may be obtained with ENSIGN Carburetion for either natural gas or Butane-Propane.

In more and more cases LPG is used for light and power in rural communities. For multi-cylinder internal combustion engines operating on Butane-Propane or Natural Gas ENSIGN Carburetion is the accepted standard from coast to coast.

Write us for full information.



Ensign Model "B" Fuel Regulator
for Butane-Propane Vapor

ENSIGN

CARBURETOR COMPANY

7010 SOUTH ALAMEDA ST., P.O. BOX 229
HUNTINGTON PARK, CALIFORNIA

Branch Factory, 2330 West 58th Street, Chicago 36, Illinois

to prevent removal of the regulator cover; (2) to prevent access to the oil control regulator; and (3) to prevent removal of the oil regulator from the vaporizer body.

There are four seals on the carburetor: (1) on the main load adjustment; (2) on the starting equipment; (3) on the carburetor body between the air horn and throttle tube, and (4) from the carburetor to the manifold.

The LP-Gas equipment is not subject to checks on a mileage or time-in-service basis. It always stays in prime operating condition between the truck engine overhauls. That is, "since sealing."

The only service between overhauls is the cleaning of the butane filters at from 15,000 to 20,000

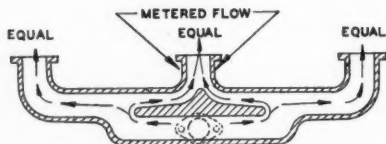
miles use. About every four to six months, the air-to-fuel ratio is checked to see if it conforms to the Ensign specification of approximately 13 to 1. The analyzer is installed on the truck engine. It is operated under its normal full-load condition, with the engine at its top cruising speed. The analyzer check has seldom called for any readjustments—another result of the hands-off, sealing era at Griffith.

Parts Cleaned Thoroughly

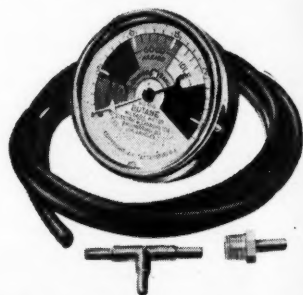
During assembly of each unit, Mr. McKinney puts all parts through a bath of Ameroid carburetor and parts cleaner, a non-flammable cleansing agent. Examination is made for wear and deterioration of the diaphragm, al-

TATTERSFIELD

BUTANE ENGINEERED PROPANE MANIFOLDS



Sketch showing the equal flow of fuel to each cylinder insuring more power and less fuel consumption at all speeds.



TATTERSFIELD Butane-Propane Manifold

and Mileage Meter installations save truck operators from 12% to 15% in operating costs. TATTERSFIELD Manifold and Mileage Meter installations are profitable installations and most important of all, you make a steady Butane user. Power conversions on trucks, tractors and stationary engines will be a great factor in increasing your volume.

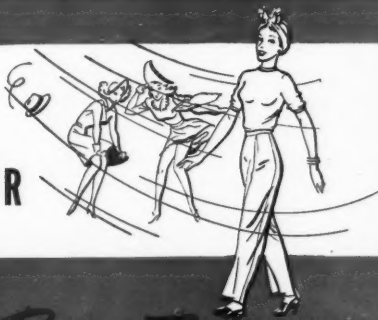
WRITE FOR OUR DEALER PRICES on Ford, International, G.M.C., Dodge, E. H. Mack, and Chevrolet truck installations. Also available for passenger cars.

Electric and Carburetor Engineering Co.

2323 E. 8th St.

"Pioneers of the Butane Industry" Los Angeles 21, Calif.

Don't worry
ABOUT ROUGH AIR



...the Bryant
BLAST PILOT ASSEMBLY



Adaptable to spark
 plug ignition in con-
 nection with flame
 failure equipment.

always
Burns!

Let 'er blow! High furnace pressures and drafts won't disturb the Bryant Blast Pilot Assembly. Advanced burner design and other refinements produce a stable flame which can be directed and will *hold direction* under any operating conditions.

The Blast Pilot Assembly can be easily modified for piloting all types of burners, for all furnace wall thicknesses.

For complete details and specifications, write Industrial Division, Bryant Heater Co., 17825 St. Clair Avenue, Cleveland 10, Ohio.

**Use the Bryant
 Blast Pilot
 Assembly for
 that "Tricky"
 Pilot Job!**

GAS

INDUSTRIAL DIVISION

CONSTRUCTION FOR INDUSTRY
Bryant Heater Company



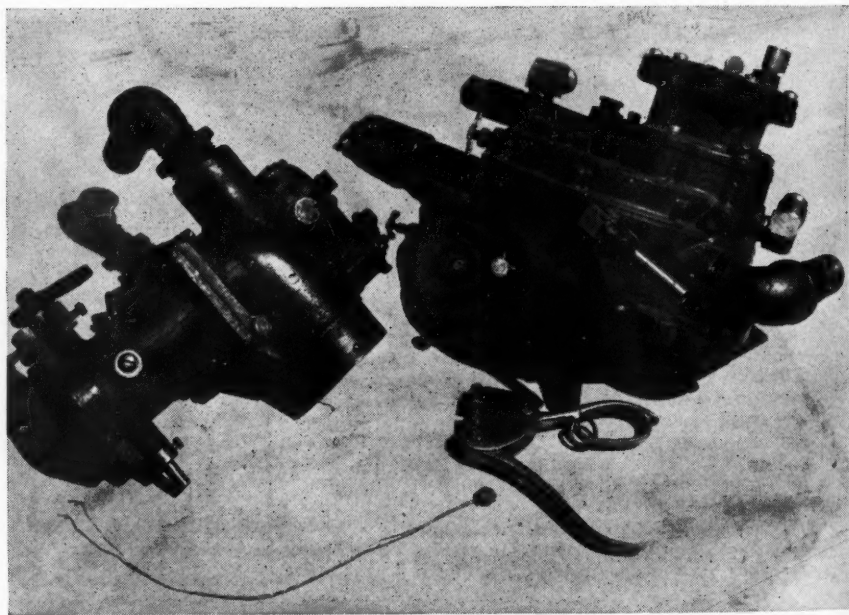
though it is an unusual case when a diaphragm is replaced.

The parts most often replaced are the main valve and spring in the LP-Gas regulator. Spark plugs are not cleaned, but are replaced every 15,000-20,000 miles. They could be used much longer. In one case, 14 of the trucks were on an out-of-town job for a year. Eight of them came back with original plugs on them, and the mileages were estimated at more than 50,000 miles per unit.

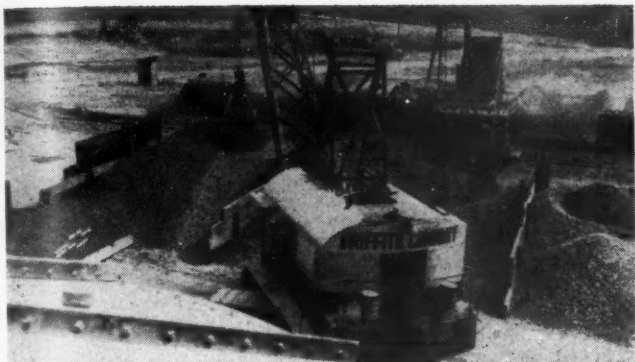
There is no oil dilution with LP-Gas. Oil is changed about half

as often as when gasoline is used, cutting oil costs at least 50%. Frequency of oil change is not a prime requirement, but the drained oil can be used to advantage in the company's asphalt plant. Oil change is also a part of the company's policy which calls for high standards of preventive maintenance. A laboratory analysis of the oil for water, carbon, and metal content, and for molecular condition shows that the drained oil is still usable.

With the use of butane and propane mixtures, the engines are



Left to right, Ensign Kg-1 1 $\frac{3}{4}$ " butane-propane carburetor and Ensign Model R vaporizer with oil control. Two other seals will be on the carburetor between the air horn and throttle tube, and attaching carburetor to manifold. The three seals on the vaporizer are to prevent (1) removal of the regulator cover, (2) access to the oil control regulator, and (3) removal of the oil regulator from the vaporizer body.



Griffith Company's Lima shovel with 1½-yard clam shell bucket transferring aggregate from a stockpile to a batch bunker. The shovel is powered with a Waukesha-Hesselman multi-fuel, Model EKH, 6-cyl. 170-hp engine equipped with Ensign vaporizer and carburetor to use butane-propane gas. Picture was taken at the Cawelo plant.

completely free of carbon deposits on the valve stems. Valve burning and valve grinding to eliminate the deposits that hold the valves open have been entirely eliminated. Valves are given regular compression checks, but no loss of compression because of burnt valves or stuck rings has been discovered.

A general pattern of the engine maintenance reveals that after about 35,000-45,000 miles of operation, the pistons get new rings. After another 10,000-20,000 miles, new expander rings are used. Some time later, probably at 75,000 miles or more, the engines undergo the major overhauls, including rebor-ing. With gasoline as a fuel, rebor-ing was generally necessary at 50,000 miles or less.

When Mr. McKinney started at his present position in Oct., 1944, four White trucks had been operating on Ensign equipment for Griffith Company since 1938. He was authorized to install similar equipment on another White. After testing it strenuously for a 15-day period, the company decided to

equip all of the White dump trucks in the same manner. Since that time it has been standard for all Griffith equipment of this type.

The main factor behind this successful operation with butane as fuel, however, has been the era "since sealing." This has been a period of complete centralization of every phase of maintenance, testing, repair, and adjustment of LP-Gas units by the hands of an experienced specialist who is really "cooking with gas" with service of Ensign carburetors.

Dix Petroleum Co. Opens Sales Office in Wichita, Kan.

The Dix Petroleum Co., Wichita, Kan., has opened a new dealer location at 447 N. Main. The new establishment supplements the original combination display room and distribution office operated by the company at 1012 S. Main, Hutchinson.

Richard E. Smith is president, and Leonard Fuqua is general sales manager of Dix Petroleum. The organization sells a complete line of LP-Gas systems.

Keeping Product Before Public

With Direct Mail Advertising

WITH consumers becoming increasingly "buyers' market" conscious, active sales and advertising programs are more fashionable. While only 10% of potential demand has been satisfied by the LP-Gas industry, institutional advertising is considered essential to its nourishment. As well as the use of other fuels, there is always the competition of electricity's merchandising methods to contend with.

The Pennzoil Co. of Los Angeles, whose sales activities bring it into contention with all the large oil companies, is using a brand of direct mail advertising that is adaptable to the needs of LP-Gas dealers. Operating on a budget which is measured in terms of thousands of dollars in comparison with the million-dollar advertising expenditures of major oil concerns, Pennzoil makes direct mail go a long way in a fashion that may suit the hundred-dollar advertising accounts of liquefied petroleum gas men.

Checks Results

Don Monroe, Pennzoil's sales promotion manager, has laid out a scheme of mailings which are directed toward luring one-time users of the company's lubrication products into regular consumption. Through a precise method of checking results, Mr. Monroe has

discovered that the mailings bring back 95% of customers, a phenomenal return on low-cost advertising.

Although the problem of getting users of automobile lubricants to return to the same source of supply is somewhat different from those of assuring steady business for LP-Gas dealers, Pennzoil's methods are suggestive of what might be done. As an inexpensive way of keeping the name of the product before the consumer, direct mail advertising is probably the best approach for off-setting huge appropriations for promotion by electrical competition.

Medium for Small Dealer

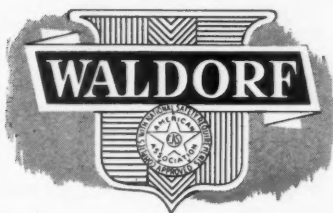
Mr. Monroe is ready with figures that establish the relative value of his chosen advertising medium for the small dealer. Mass media, according to Mr. Monroe, reach only 5% of prospects at 20 times more than the cost of direct mailings.

"I believe in the right kind of advertising for the right size and the right kind of business," he says. "With direct mail we are dealing with a definite list of prospects who we know are already interested in the product."

Working as a cooperative agency much in the same manner as LP-Gas associations have operated to provide dealers with advertising

Strictly for tomorrow

.... THE NEW *L-P*



AUTOMATIC WATER HEATER

Yessir, it's **THE** modern heater for L-P gas. A step or two ahead of competition in the water-heating field. Look-ahead engineering distinguishes its design. Good design explains its looks. There is no customer-resistance! Here are some of the "tomorrow" features that soften up a sale:

- Electro-magnetic automatic-100% safety-thermo-couple control shuts off completely both pilot and main burner in case of gas failure. Gas will not flow to main burner until safety pilot is lighted and operating.
- Positive, snap-action thermostat with graduated dial for water temperature.
- Insulated with heavy blanket of heat-retaining fibre-glass.
- Improved bunsen-type cast iron burner designed and engineered for maximum efficiency.
- Extra heavy precision welded tank, double-dipped galvanized inside and outside by hot-dip process. Pressure tested to 300 pounds.
- Gleaming white, enameled steel jacket, baked by infra-red process.
- Approved by American Gas Association.

WALDORF HEATER CO.

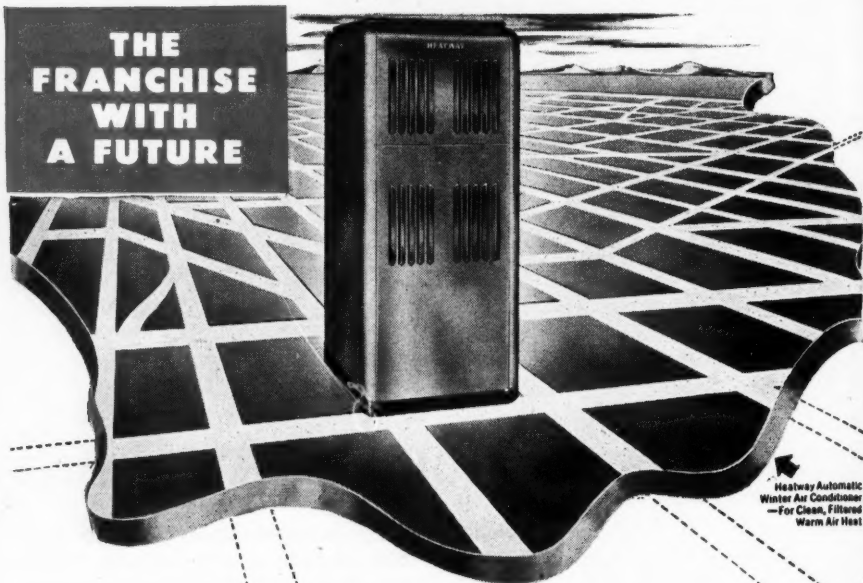
1421 Chestnut Street

• Philadelphia 2, Pa.

OCTOBER — 1947

149

**THE
FRANCHISE
WITH
A FUTURE**



A Distributorship for an Exclusive Territory to Sell Heatway Appliances

H EATWAY is a national organization with millions invested in factories and research facilities. From these plants comes a full line of heating appliances—gravity furnaces, automatic winter air conditioners, console heaters, floor furnaces, blowers—in all sizes, for all fuels.

You have the advantage of buying all of your appliances through one source—which means that you can get assorted merchandise in quantity and take the profitable discount for carload lots.

You have the backing of national advertising which sifts out interested appliance customers by name. These pros-



HEATWAY

Modern Heating for Modern Living

pective buyers are referred to their local dealer. There's an extra 2% advertising allowance on all earned invoices.

And your dealers enjoy the Heatway Floor-Finance Plan, which permits them to carry a full line of appliances for only a 10% cash down payment.

Distributorships are still open. Act now if you want profits for today—and tomorrow! Just send in this coupon.

HEATWAY, Dept. H-D13
20 West 43rd Street, New York 18, N.Y.
I'm interested in the Heatway Franchise.

NAME

FIRM

ADDRESS

CITY.....STATE.....

materials, Pennzoil has achieved remarkable results. With mailings prepared by Mr. Monroe for a recent campaign, Pennzoil pulled more than \$250,000 worth of extra business for 63 dealers. The total broke down into an average of \$800 service sales volume per dealer per month.

All Pennzoil advertising is concocted according to a definite formula. Direct mail pieces are written to appeal to the average man. Mr. Monroe's two strongest requirements: (1) Brevity, on the assumption that even if the material is thrown away, the prospect will see the message; (2) Continuity, which builds up an impression and makes the product known.

High Quality Merchandise

In addition, Pennzoil uses only high quality merchandise for its direct mail advertising. For a medium devised especially to catch the eye, color is used in spite of the extra cost. Copy shouldn't exceed 75 words: Standard pieces are prepared at the Pennzoil home office. Names of dealers are added to the cards.

The sales presentation is made with the prospect's welfare in mind. Mr. Monroe believes, however, that a definite sales program must accompany an advertising program. Dealers and salesmen should be trained to carry and show copies of advertising. In this manner, direct mail has a two-fold use. The cards may be shown on calls as well as sent through the mails.

The Kansas LPGA has instituted a similar cooperative campaign to combat electric competition in that state. Under the direction of Sam Boothe, general manager of Homegas Inc., Wichita, the association provided its dealers with a wide variety of

mailing pieces described by Mr. Boothe in the August issue of the *BUTANE-PROPANE News*.

Mr. Monroe's mailing cycle is built around 84 different mailing cards. The system is divided into two classifications—lubrication sales and automobile service. When a customer makes his first visit to a Pennzoil-supplied dealer, a notation is made on the type of service his car needs. From that time on, cards are rained onto the prospect for 120 days until he either returns for service or is retired to Pennzoil's file. Even inactive past customers are peppered with mailings until they return to a dealer to do business. They are then put on the prospect list, and the advertising cycle begins again.

Because of the fiercely competitive nature of lubrication sales, this type of direct mail program is more intensive than necessary for the present needs of the LP-Gas industry. When supply of liquefied petroleum fuel catches up with demand, nevertheless, this may be a feasible advertising method for load-building. In the meantime, it will serve many LP-Gas dealers who realize the value of keeping their product in the public eye.

Gas Oil Products, Inc., Appoints Geo. W. Schock Sales Manager

George W. Schock became affiliated with Gas-Oil Products, Inc., on May 15 as sales manager, it is announced by John H. Ware, 3rd vice president. Mr. Schock was formerly domestic sales manager for the Philadelphia Gas Works.

As sales manager for Gas-Oil Products, Inc., he will be located at the company's main offices in Oxford, Pa., and will direct the sales of the company through its 25 branches.

THE TRADE

The appointment of Carl J. Dinic as manager of commercial research for Rheem Manufacturing Co., is announced by A. Lightfoot Walker, executive assistant to the president. He will make his headquarters in the New York office.

Prior to joining Rheem, Mr. Dinic was with the American Locomotive Company, with United States Steel Corp. of Delaware and was formerly associated with Eastern Gas & Fuel Associates.

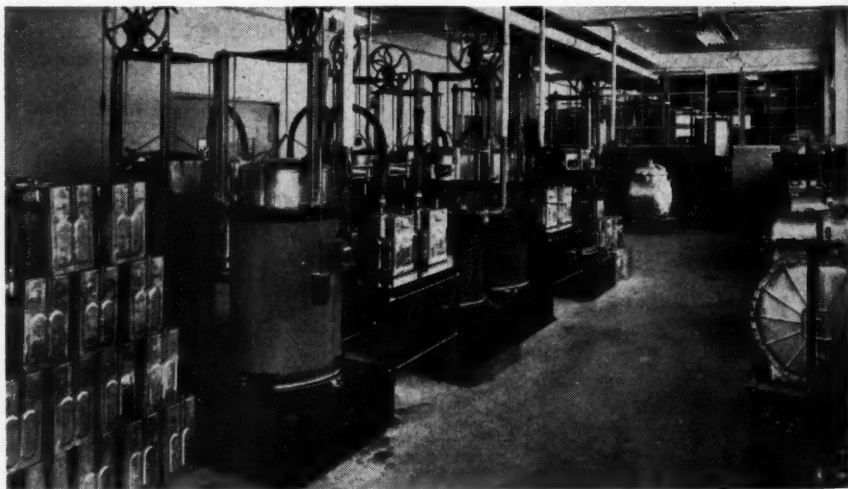
American Meter Co. announces the opening of its new factory and office building, 950 Tennessee St., San Francisco, on Aug. 1.

The new headquarters will coordinate and round out the total gas meter production for the requirements of the Pacific Coast.

The factory is completely equipped with the most modern machinery and facilities for the manufacture, repair and testing of gas meters and is outstanding from the standpoint of appearance, light and ventilation.

Gustavus J. Thompson, for many years district manager of the Ruud Manufacturing Co. in the State of Texas, died at his home in Dallas, Aug. 3.

Mr. Thompson was born in Manito-



General view in proving room, American Meter Co., San Francisco plant.



with the **BIG, QUIET FAN**

Reznor's big, quiet fan and high-yield heat exchanger put heat where you want it, at less cost . . . eliminate expensive central heating plants. Suspended or floor-type units heat any size area in offices, theatres, restaurants, stores, factories, warehouses, and commercial buildings. Write today for complete data on the Reznor "Automatic" Gas Fired Heater.



REZNOR
Gas fired unit heaters

SUSPENDED OR
FLOOR MODEL

A SIZE FOR EVERY NEED

REZNOR CO. MERCER, PENNA.

GAS FIRED HEATERS SINCE 1888

**NO BOILERS • NO STEAM LINES
NO FUEL STORAGE • NO FIRE TENDING**

woc, Wis., and spent his boyhood there. After a few years with the International Harvester Co., of Chicago, he joined the Humphrey division of the Ruud Manufacturing Co. in 1913 and was attached to the sales department with headquarters in Kalamazoo, Mich., until 1931 when he was transferred to Texas as Ruud district manager. He was retired from active service in 1942 due to ill health.



GLYN THOMAS

the export department while maintaining his headquarters in the Milwaukee general office.

Mr. Thomas joined the Phillips Division of the Phillips Petroleum Co. in 1935, remaining there 10 years. He was assistant manager of the Phillips plant in Richfield Springs, N. Y., and later purchasing agent for the Philgas Division both at Detroit and Bartlesville. Mr. Thomas also spent two years with an LP-Gas equipment distributor.

Announcement is made by American Car and Foundry Co. that Henry V. Bootes, formerly sales agent for the company, has been appointed district sales manager, New York sales district. He will continue to make his headquarters in New York.

Glyn Thomas, well known in the LP-Gas industry for the past 12 years, has joined the sales department of Pressed Steel Tank Co., makers of cylinders, drums, shapes and other metal products. Mr. Thomas will also help direct



WM. L. HAUCK



A. F. SPRING

William L. Hauck has been appointed eastern district sales manager of The Weatherhead Co., of Cleveland, with headquarters at 4302 Lincoln Bldg., 60 East 42nd St., New York City, it was recently announced by H. Church, vice president in charge of sales.

Mr. Hauck, a native New Yorker, is well known in the LP-Gas industry. He was formerly sales manager of the Trageser Copper Works, Maspeth, Long Island, N. Y., and district sales manager for Scaife Co. in New York.

A. F. Spring, of Shaker Heights, Ohio, has been appointed to the newly-created position of export manager of The Weatherhead Co.

Mr. Spring, who formerly headed the Continental Trading Corp., of Cleveland, will have charge of all company exports throughout the world and will maintain his office at the main plant of The Weatherhead Co. in Cleveland.

John F. Walsh, formerly with Rheem Manufacturing Co., has joined the sales staff of the Waldorf Heater Co., Philadelphia. Before serving with the government during the war, Mr. Walsh was connected with R. D. Bitzer Co. and was at one time the man-

Cold Facts



...sell Dearborn heaters

Cold feet are cold facts to those who have them—and it's a cold fact that a Dearborn puts heat where it's wanted—on the floor. Together with the many other exclusive features of the Dearborn—the world's finest, safest heater—you have more selling points than you need.

TELL THEM WHY AND THEY'LL BUY!

You can tell prospects how the Dearborn will give them warm floors, wall to wall*... how it will heat the living zone*... how the Dearborn heats the far corner*... how heating experts okay the Dearborn*.

You can tell them, too, about the famous gas-saving, automatic lighting, High-Crown Burner, and how it is specially machined to operate most efficiently on each different type gas; about the revolutionary Dearborn "siphon" chassis, which constantly forces warm air floorward; about the marvelous Saf-T-Cabinet, which stays cool all the time and won't scorch drapes, blister furniture or sear young fingers.

JUST TELL THEM — AND YOU'LL SELL THEM!



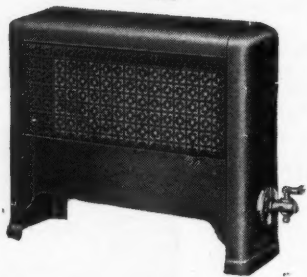
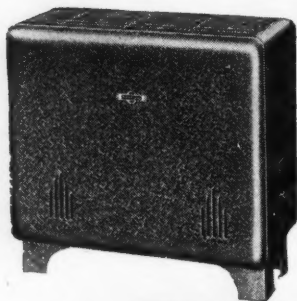
1700 W. COMMERCE ST., DALLAS, TEXAS
CHICAGO • LOS ANGELES



*Headlines of Dearborn advertisements... full-page and half-page, full-color and black and white advertisements appearing this fall and winter in The Saturday Evening Post, Better Homes & Gardens, Progressive Farmer, Holland's and Sunset Magazine. This is only part of the Dearborn consumer advertising campaign to bring more heater hunters to your store.

First in Quality Peerless

★ Circulators ★ Gas Heaters



63 years of Peerless research in the Science of Heating and its allied problems of Engineering, Design, Styling and Finish has resulted in today's outstanding quality heating equipment.

★ The Peerless line is . . . made to sell . . .
made to satisfy . . . made to last.



MANUFACTURING CORPORATION

Incorporated
LOUISVILLE, KENTUCKY
Since 1884

ager of the plumbing and heating section of Sears Roebuck Co. at Camden, N. J., store.

George Garland, of Salina, Kan., will represent the Waldorf Heater Co. in several Midwestern states, such as Arkansas, Oklahoma, western Tennessee, and parts of Missouri and Kansas.

Edward F. Dobson has been elected president and director of Florence Stove Co. Robert L. Fowler, formerly president and chairman of the board, will continue as chairman of the board. The new president will take office October 1.



E. F. DOBSON

The Florence Stove Co. has factories at Gardner, Mass.; Kankakee, Ill., and Lewisburg, Tenn.

Mr. Dobson brings to his new position a wide experience in industry and business management. His whole career has been in the field of manufacturing where he has been closely associated with all phases of factory production and operations.

Rheem Manufacturing Co., through its president, R. S. Rheem, has announced the formation of a subsidiary company in Canada, to be known as Rheem Canada, Ltd. The offices and plant of the new company are located in Hamilton, Ontario.

The president of the newly formed company is R. S. Rheem. Other officers are Trumbull Warren, vice president and general manager; Ronald L. Marks, secretary-treasurer; E. L.

ROBERTSHAW

Space-Heater

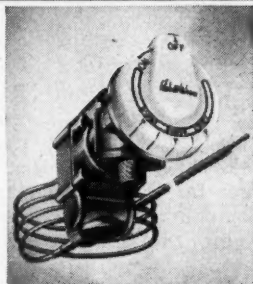
THERMOSTATS

FOR
AUTOMATIC SECTIONAL
HOUSE HEATING
WITH GAS



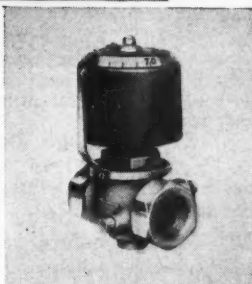
Three popular types of accurate, dependable Space-Heater Thermostats of high quality.

For kitchen heaters, gas steam radiators, circulators, radiant circulators and radiant heaters, gas conversion coal ranges, floor furnaces and central heating.



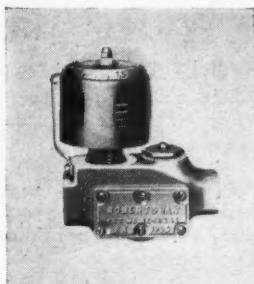
MODEL "BJ" ROOM

Hydraulic. Combination dial and gas cock turns gas on and sets dial with one motion.



MODEL "2E"

Throttling Type. Can be furnished with locking device preventing change in temperature setting except with key.



MODEL "2ES"

A snap-action thermostat; $\frac{1}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ " gas pipe sizes.

Your customers will get maximum heating satisfaction from heaters equipped with Robertshaw Thermostats.

ROBERTSHAW
THERMOSTAT COMPANY
YOUNGWOOD, PA.

Grayson Controls Division
Lynwood, Cal.

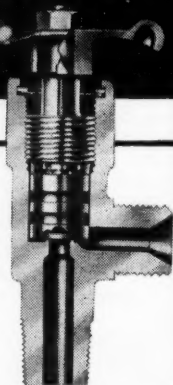
American Thermometer Division
St. Louis, Mo.

OCTOBER — 1947

157

Announcing SE-CO shut-off VALVES for Gas Cylinders

listed by
Underwriters Laboratories, Inc.



2
**Exclusive
Features**

WON'T STICK! SE-CO valves cannot freeze in either open or closed positions. Quick, safe closing is always easy without a wrench.

CAN'T BACK OUT! Ingenious design makes it impossible to back stem out of body accidentally, by turning handle past open position.

SPECIFICATIONS:

The SE-CO valve is the packless stem type, for pressures from 1 oz. to 3500 psi, temperatures from -70° to 250° F. The valve seat is Neoprene. Open and close torque is not in excess of 35 in/lb. Relief valve available.

DISTRIBUTORS We are currently appointing two types of distributor. We welcome your inquiries.

SECURITY VALVE COMPANY

410 San Fernando Road
Los Angeles 31, California

Prais, production manager.

Rheem Canada, Limited will manufacture steel shipping containers for the petroleum, chemical, food, paint and other industries. Other products similar to those made in the Rheem plants in the United States will be added at a later date by the new company.

Creation of another new sales district, the Southern Sales District, has recently been announced by the L. J.

Mueller Furnace Co., Milwaukee.

Sales manager for the district is L. M. Becknell, of Atlanta, Ga., who was with Mueller from 1936 to 1945. In 1945 he was granted a leave of absence to assume an important position in connection with the Atomic Bomb Project at Oak



L. M. BECKNELL

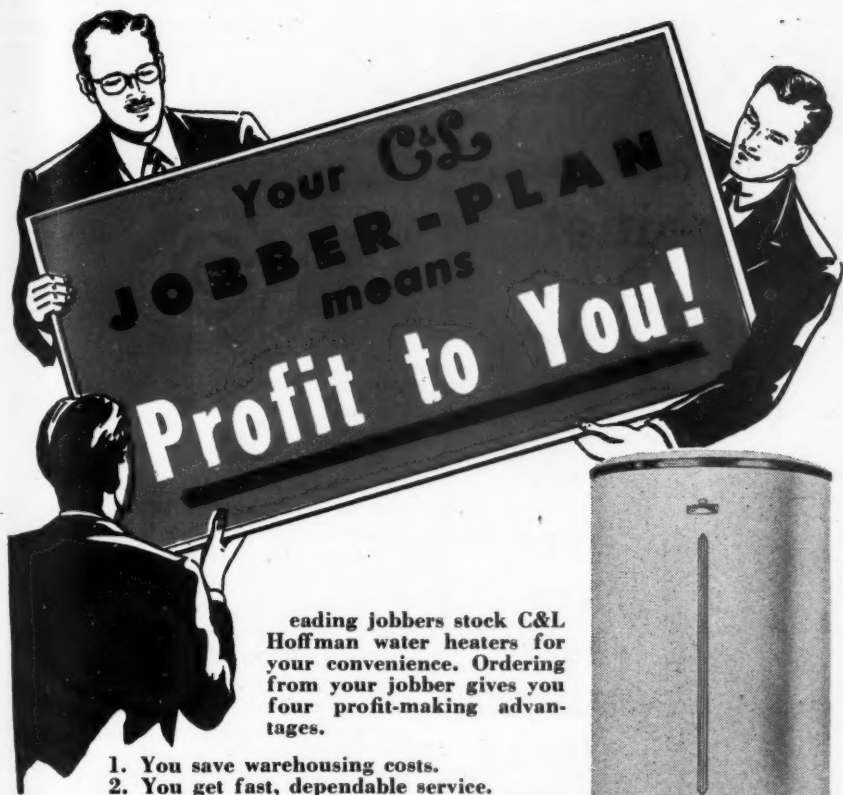
Ridge, Tennessee. Leaving Oak Ridge in 1946, Mr. Becknell became District Sales Manager for the Rheem Manufacturing Company in the southeast before rejoining the Mueller organization.

Assisting Mr. Becknell is E. M. Fondersmith, who covers Florida and has been with Mueller for many years.

John H. Emery, vice president of the Roberts & Mander Corp., Hatboro, Pa., manufacturers of "Quality" appliances, died Aug. 24 at the Orange (N. J.) Memorial Hospital after an illness of several weeks. He was 49 years old.

Mr. Emery joined the Roberts & Mander Corp. in 1945 as the district

BUTANE-PROPANE News

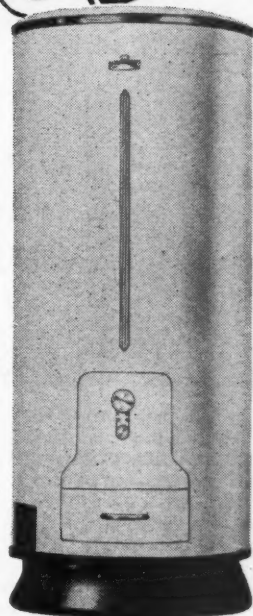


Leading jobbers stock C&L Hoffman water heaters for your convenience. Ordering from your jobber gives you four profit-making advantages.

1. You save warehousing costs.
2. You get fast, dependable service.
3. You save floor space for sales-building displays.
4. You get the help of a fellow businessman who knows your problems.

Always specify C&L HOFFMAN from your jobber. Write for descriptive literature and the name of the jobber nearest you.

The Series K-2 C&L Hoffman automatic storage water heaters are styled for beauty, engineered for dependable performance. They are available in 30-gallon and 45-gallon capacities for Liquefied Petroleum Gas (Bottle Gas).



SERIES K-2

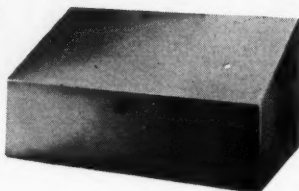
Other C&L Products: C&L Blow Torches, Fire Pots • C&L Lamneck Furnace • Pipe & Fittings • Buckeye Corn Cribbs, Grain Bins • Silver Shield Silos

CLAYTON & LAMBERT MFG. CO.
1731 DIXIE HIGHWAY • LOUISVILLE 10, KY.

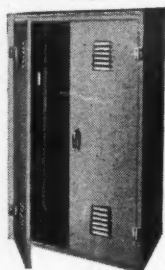
OXFORD

Bottled Gas Cabinets

Hood Type



Cabinet Type



**FOR
LONG
and
DEPENDABLE
SERVICE**

For that **extra** protection against severe weather and accidents, install Oxford Bottled Gas Cabinets. Thousands of Full Size, Single Hood and Double Hood types are giving unparalleled service throughout the country. Constructed of heavy metal with a protective coating of paint or galvanized to insure rust resistance. Cylinders, valves, regulators, etc., are fully protected. Write for prices and details.

The Oxford Company
Oxford Penna.

Mander Corp. in 1945 as the district manager of the New York office. Last February he assumed the position of vice president.

The advancement of Cecil M. Dunn to the newly created position of director of sales and advertising has just been announced by John A. Seubert, vice president and general manager of the Estate Heatrola division, Noma Electric Corp. Mr. Dunn has been general sales manager of this division for the past year. Previous to that he was assistant sales manager and promotion manager.



CECIL M. DUNN

As director of sales and advertising, Mr. Dunn is now supervising the company's enlarged advertising campaign for the sale of Estate gas and electric ranges, Estate-Heatrola space heaters and Estate farm and home freezers.

The executive sales offices of Estate Heatrola have been transferred to the factory at Hamilton, Ohio. Mr. Dunn and his assistants are now located there.

Announcement is made by American Car and Foundry Co. that Henry Dersofi has been appointed manager of material assembly, replacing S. S. Dunn who recently retired.

Black, Sivalls & Bryson, Inc. has set up a department of Market Research and Analysis under the direction of Robert E. Bingham, of Kansas City.

The department, a part of the Industrial and Public Relations division, will ascertain long range consumer



The Mission Senior '47 reaches a new "high" in water heater construction.

- In the 20 and 30 gallon capacities, all controls are enclosed—presenting an appearance which is modern and streamlined. No pipe fittings, valves or controls jut out from the smooth

lines of the jacket. • It is the most compact of any comparable model of equivalent storage capacity. • The Mission Senior '47 also has the exclusive Mission inner-tank circulation feature which makes hot water available on first circulation.



Mission Appliance Corporation

Headquarters PLANT: 7101 MCKINLEY AVENUE, LOS ANGELES 1, CALIFORNIA

San Francisco • Oakland • Portland • Kansas City • Dallas • Albuquerque • Houston • New Orleans

● **EXCLUSIVE**

● **SOFT WATER SERVICE**

● **FRANCHISES**

● **AVAILABLE**

— ◆ —
**NATIONALLY
ACCEPTED and
ADVERTISED**
— ◆ —

A Community Service with excellent profits on medium investment.

•
Your L. P. Gas customers can be sold this additional service.

•
Soft Water Service customers are good prospects for L. P. Gas service.

•
*Wire or write today
for additional information*

•
FILTER-SOFT CORPORATION

222 WEST ADAMS ST.
CHICAGO 6, ILLINOIS

*A Member
Chicago Chamber of Commerce*

needs, making possible the coordination of production to fit these needs as they arise.



W. F. WEIMER

William F. Weimer, for the past several years assistant advertising manager of the Rockwell Manufacturing Co., Pittsburgh, has been named advertising manager of the company's Pittsburgh Equitable Meter Division.

In his new responsibility, he will have charge of the complete advertising program for the Pittsburgh Equitable Meter Division's lines of water, gasoline, oil and gas meters, gas regulators, and other products. He will also continue to assist with the administration of the over-all advertising program of the Rockwell Manufacturing Co. and its 14 operating divisions and subsidiaries.

For the first time in 25 years, Cribben & Sexton Co., Chicago, will use national magazines to tell homemakers about the work and time-saving features of the new "Universal" gas range.

According to Harold E. Jalass, general sales manager, the new national campaign is now in progress.

The Lois Metal Products Co., Brooklyn, has appointed Irving Fishman sales promotion manager for its line of dollies and hand trucks. His office is located at 1113 Broadway, New York City.

"SATISFIED CUSTOMERS ARE SELLING A LARGE PERCENTAGE OF MY WARD FLOOR FURNACES FOR ME"

- Having sold Ward Floor Furnaces in Montana for the past 17 years, I feel I am qualified to judge their merits. I do not know the number of Wards that I have installed here but it must run into the hundreds, and of that number I do not have one dissatisfied user. Each and every customer says they have experienced not only the smallest gas bills they have ever had but their homes and offices have been heated to perfection.

Satisfied customers are selling a large percentage of my Ward Floor Furnaces for me.

Montana weather is very cold, sometimes getting 40 degrees below and holding that temperature for days. Ward heated homes still have warm floors and comfortably heated rooms.

SEWARD ORTON
Billings, Montana



D ...
EALERS: No other floor furnace on the market has the acceptance that Ward enjoys... the enthusiastic approval of satisfied Ward owners. They do a big part of the selling job for you!

WARD HEATER COMPANY



SINCE 1909

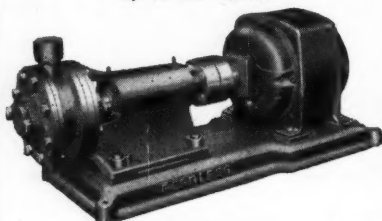
1800 W. Washington Blvd.
Los Angeles 7, California

OCTOBER — 1947

163

For
Butane-Propane
SERVICE
PEERLESS
 TURBINE (VANE)
PUMPS

For High Heads and Capacities
 up to 150 G.P.M.



Type XT

For efficient, low cost liquefied petroleum gas services including 1 p-g bottling, tank storage, truck, tankcar transfer, etc.

Most advanced in design and construction for maximum service and dependability.

Write for Details



Peerless Pump Div.

Food Machinery Corporation
 Canton 6, Ohio—Quincy, Illinois
 Los Angeles 31, Calif.

Huge Tanks Made For Standby Service

Giant tanks to meet the rapidly increasing demand for standby LP-Gas service are now being manufactured by McNamar Boiler & Tank Co. in Tulsa, Okla.

O. H. Shields, manager of the firm which has long turned out tanks of many sizes, announces that the capacity of the plant has been expanded to put out 10 30,000-gallon propane tanks per month and from 20 to 25 18,000-gallon propane tanks per month. This output is in addition to production of smaller tanks in the plant.

Huge Baldwin Locomotive Works 32-foot rollers bend long sheets of tough steel, nearly one inch thick, into cylindrical drums as easily as a child would roll up a piece of paper. Guided three times through the rollers by a single workman, aided by a crane, the cylindrical sections are then assembled for welding. These are magically joined into a 66-foot-long seamless tank by the automatic welding machines. The tank heads are then welded on by similar processes.

These mammoth 100.8-in. (I.D.) tanks are rolling out daily from the factory on flat cars to fulfill their destiny in industry throughout the United States and in foreign countries. These, and the 100.8-in. (I.D.) by 46 ft. 4-in. long, 18,000-gallon tanks, are doing their part toward providing needed storage for LP-Gas and other liquid fuels. They are being utilized more and more by natural gas and manufactured gas companies to furnish surplus and standby storage capacity for propane-air and

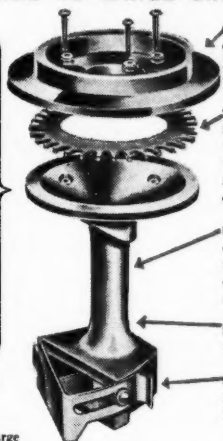
The RHEEM High Velocity Grid Burner

FOR THE SERIES 40 LARGE and THE SERIES 50 BOOSTER HEATERS

This burner has simplified, proven engineering features which assure maximum efficiency and trouble-free performance. To help service men make routine adjustments, the operation of this burner and removal methods are described in a clear, detailed, instruction manual from which the facts below are taken. Copies are available . . . just mail the coupon below.

High-Velocity Grid Burner

For use on the Series 40 Large and Series 50 Booster Heaters, where more than one burner is required.



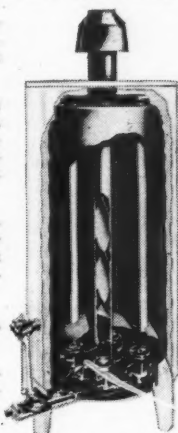
CUPPED BURNER TOP—Designed to catch condensation during initial high fire operation. Prevents moisture from interfering with perfect combustion.

STAINLESS STEEL GRID—Specially designed for each type of gas. Grids are installed at the factory for use with natural, manufactured, mixed, or liquid petroleum gas. Removal of three non-ferrous bolts makes it easy to take apart for cleaning.

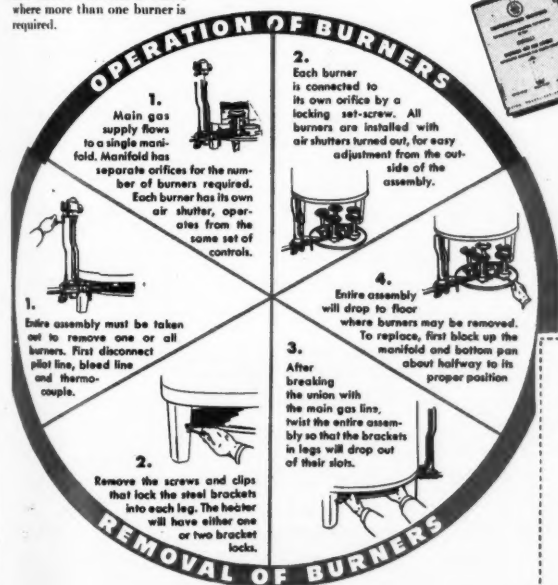
HIGH-VELOCITY MIXING CHAMBER—Thoroughly mixes a high ratio of primary air with the gas, for the greatest possible heat output with the least possible gas consumption.

STURDY CAST IRON BODY—Corrosion-resistant, it will give years of trouble-free service.

AIR SHUTTER—Permits correct air adjustment and provides a positive means of locking the proper setting.



Complete data for the operation and servicing of the Rheem High Velocity Grid Burner are available in attractive, clearly illustrated manuals. If your service men are acquainted with this information, it may save them time and labor in the field. Just indicate the number of copies you need and mail this coupon.



Rheem

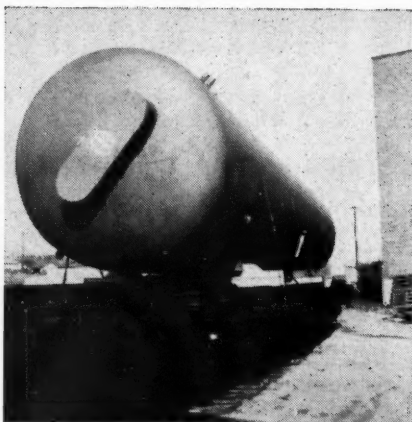
All gas appliances are approved
by The American
Gas Association



RHEEM, Dept. R-D 13
370 Lexington Avenue, New York 22, N. Y.

Please send me _____ copies of your Instruction
Manuals on the Rheem Series 40-L and Series 50
Water Heaters.

NAME _____
TITLE _____
COMPANY _____
ADDRESS _____
CITY _____ STATE _____



This 18,000-gal. propane tank was loaded on a flat car at the McNamar plant in Tulsa, bound for Daytona Beach, Fla., to be installed for standby fuel by the Florida Power & Light Co.

liquefied petroleum gas mixtures to be fed into the mains when gas pressure becomes low or the supply runs short, particularly in peak-load demand periods.

These tanks also function at oil refineries, LP-Gas bottling plants, at privately and municipally owned electric light and power plants, gasoline storage stations and even at water plants to keep industry and public service on an even keel. They represent one phase of the herculean efforts being made by the tank manufacturers to keep abreast of the phenomenal increase in demand for LP-Gases which piles up in formidable peaks, particularly during winter months.

Actual thickness of the steel which goes into the 30,000-gallon tanks is .974-inch and into the 18,000-gallon tanks .912-inch. The McNamar firm fully complies with U-69 ASME code and constructs its tanks to bear five times the 200 pounds rated pressure.

As an extra safety factor, release valves are set to pop at 240 pounds pressure. Steel utilized in making these big tanks is A-212B firebox quality, purchased from Bethlehem and other famous Eastern steel mills. Automatic welding equipment being used is purchased from the Linde-Air Products Co.

When this writer visited the McNamar plant in Tulsa a "bay" 340 feet long and 60 feet wide, with concrete floors, steel frame and corrugated protective covering was being added to the already extensive factory area. The company was proceeding with production of the big tanks while the building was going up.

McNamar Boiler & Tank Co. for many years has been manufacturing LP-Gas tanks for domestic and commercial installations in sizes from 250 to 1000 gallons but only last December did it launch into the really big tank field from its Tulsa plant.

New Bulk Plant Planned For Upper Michigan Peninsula

The Hof Bottled Gas Co., Ironwood, Mich., has been formed to market propane gas and appliances, both retail and wholesale, in the western area of the Upper Peninsula of Michigan.

Officers of the new company are Melville D. Hof, president, Edwin Russell Johnson, secretary and treasurer, and Earl C. St. Cyr, vice president.

Porcelain Enamellers Told Uses Of Liquefied Petroleum Gas

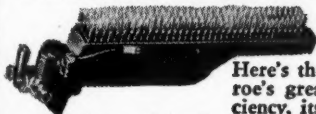
E. A. Jamison, Philgas Division, Phillips Petroleum Co., addressed the Ninth Annual Forum of the Porcelain Enamel Institute on "Use of Liquefied Petroleum Gas" Sept. 10 at Ohio State University, Columbus. Mr. Jamison's talk was mainly directed to plants

YOU'LL BE AHEAD AND STAY AHEAD WITH MONROE

Built with FEATURES That Assure You of a Profitable FUTURE!

Monroe—a truly outstanding gas heater that's scientifically designed and ruggedly built to do an efficient, economical heating job *anywhere!* Packed with modern automatic features, beautifully styled and equipped with the famous GASTMASTER BURNER—the "tailor-made" burner specially engineered and designed for each type of gas—natural, mixed or LPG. If you want to get ahead and stay ahead—remember the name MONROE. It's the name you'll find on America's finest-looking, fastest-selling gas heaters. *Some exclusive franchises available.*

FAMOUS GASTMASTER BURNER



Here's the secret of Monroe's greater heating efficiency, its silent, odorless operation and its lower gas consumption. The Gastmaster Burner is ruggedly built for years of trouble-free operation and engineered to operate economically on *all* gases.

Nationally Advertised

Monroe

One of America's Finest Line of
GAS HEATERS

MONROE STOVE CO. • 3256 MILWAUKEE AVENUE • CHICAGO 18, ILLINOIS



THESE OUTSTANDING MONROE
FEATURES WILL HELP YOU
CLINCH MORE GAS HEATER

Sales!

- **Dual Heat Exchangers**—Twin heat exchangers squeeze all the heat from the air as it moves toward the flue.
- **Patented Interior**—Circulates clean, fresh-heated air evenly throughout the home.
- **Automatic Lighting**—Safe and convenient. Use only one match a season!
- **Warm-Flor Radiants**—Scientifically designed to produce more infra-red heat and project it farther.

MONROE OFFERS YOU A
COMPLETE LINE FOR
EVERY HEATING NEED
WITH ALL GASES



The safety school, conducted by the Louisiana Liquefied Petroleum Gas Commission, was held in Allen Hall (right) at Louisiana State University, Baton Rouge, Aug. 27-28.

considering fuel changeover or stand-by to present fuel.

Mr. Jamison discussed the use of LP-Gas, other gaseous fuels, and fuel oil and covered price fluctuation, installation regulations, storage and handling, installation costs, applicable types of combustion systems, and operating problems involved in the use of liquefied petroleum gas as a fuel for porcelain enameling operations.

Louisiana LP-Gas Commission Holds Second Safety School

The Louisiana Liquefied Petroleum Gas Commission became the first state body to establish regular service and safety schools. It sponsored its second two-day training program for LP-Gas men in Allen Hall on the campus of the State university, Baton Rouge, Aug. 27-28.

W. U. Moss, director of the Louisiana Commission, lined up authoritative industry speakers for the session. The key safety talk was by Elwin E. Hadlick, executive vice president of the National Butane-Propane Association. Mr. Hadlick, who delivered his address at the final dinner meeting of those who attended the school, talked on "Sanity in Safety Regulation." His warning :

"Today we find industry actually sponsoring legislation for its own regulation. But the wise industry does so in advance of need—when matters can be considered sanely. When legislation is enacted in the aftermath of a bad disaster it usually turns out to be burdensome legislation."

Warren Tanker Will Haul LP-Gas to New York Area

The newly built propane tank steamer, S.S. Natalie Warren, will carry 1,300,000 gals. of liquid propane per trip to New York. The tank steamer, operated by the Warren Petroleum Corp., of Tulsa, will make two trips a month from Houston to the New York area.

When reduced to commercial gas, this will mean an additional supply of 400,000,000 cu. ft. per month, or enough to supply 285,000 homes and apartments. The initial trip from the Gulf Coast to the metropolis is scheduled for this fall.

Essential to the process of unloading the propane from the ship is a centrifugal gas compressor and auxiliaries made by the Carrier Corp., Syracuse, supplier of centrifugal gas compressor equipment in the oil and gas industry.



When your prospects want?
MAXIMUM capacity
 in **MINIMUM** space

Savory

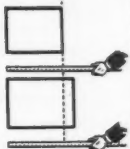
Stainless Steel Toasters
 LP Gas

6 slices per minute

19½" x 16½"

12 slices per minute

23½" x 16½"



Savory Toasters give fast toast production in less space—another powerful sales argument to sell schools, hospitals, restaurants, lunch wagons and institutions on LP gas for toasting and to open the door to sales of additional LP gas heavy-duty cooking equipment. Savory is the only completely satisfactory solution to quantity toasting problems, because Savory is the only toaster with the conveyor system. This conveyor moves continuously at a set speed, keeping the loading end clear, carrying the bread through the three

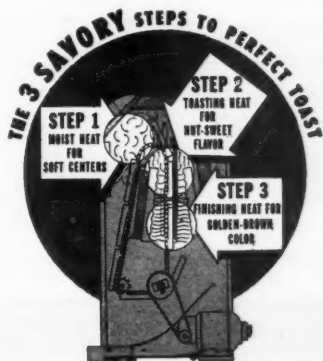
heating zones and unloading the finished toast in the serving tray—a completely automatic operation. A Savory Toaster is like an extra helper in the kitchen.

Savory is cooperating with LP gas dealers who are developing the profitable commercial cooking load. Write for details.

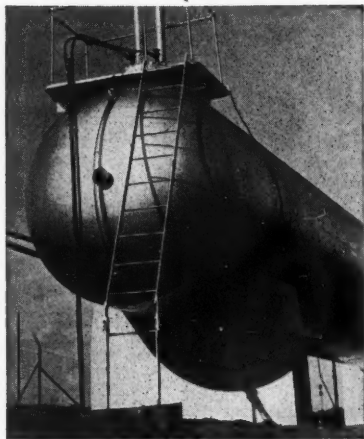
SAVORY TOASTERS are available
 in bread, bun and sandwich models.

Savory
 EQUIPMENT, INCORPORATED

137 PACIFIC STREET, NEWARK 5, N. J.
 Sold by leading LP gas dealers everywhere



LOOK IT UP in WEBSTER!



"A tank," says Webster, "is a large receptacle." If he had been defining a LANCASTER LPG Storage tank, he would have said: "a large receptacle expertly engineered, soundly constructed and fabricated in strict accordance with standard codes." Give us a chance and we'll prove that's the correct definition when the tank's a LANCASTER.

*Write today for
detailed information*

New York Office: Graybar Building

LANCASTER IRON WORKS, INC.
LANCASTER, PENNA., U. S. A.

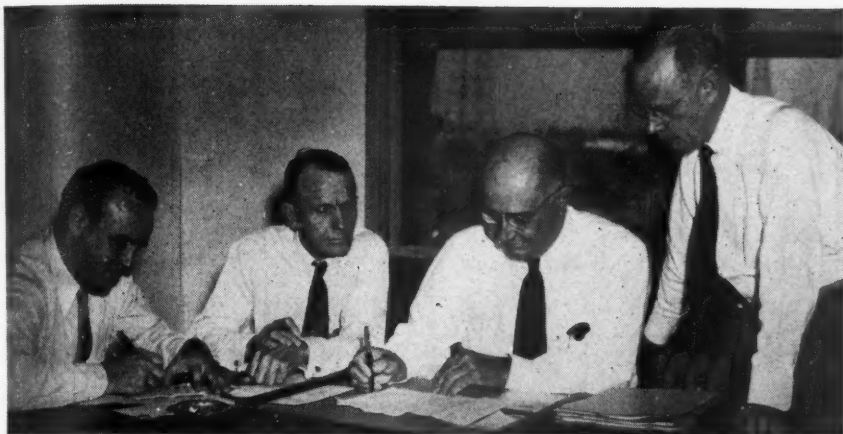
Some Rules Changed in Oklahoma

THE new Liquefied Petroleum Gas Administration, at its first meeting in the office of State Fire Marshal M. G. Young, Aug. 11-12, adopted several changes in the rules and regulations applying to the industry as promulgated in February, 1946.

The board is composed of Dewey Wood, Ardmore, chairman; Ralph Lillard, Shawnee, and Logan D. Hyder, Chattanooga, secretary. Organization was completed at the meeting which was called in pursuance to Senate Bill 206, enacted at the recent session of the Oklahoma legislature.

A basic rule which requires the odorization of LP-Gases was amended to provide that the malodorant agent be introduced in such a way as to indicate the presence of gas according to, "The NGAA standard, 1 1/10 lb. marcapitan per 10,000 gallons, or one gallon of calodrant per 10,000." B.1, paragraph (c) of the rules, which requires that the malodorant agent shall be harmless and non-toxic and shall be non-corrosive to steel, iron, brass, bronze, synthetic rubber or leather, was amended to add the further requirement that the malodorant comply with "NGAA standards as to copper strip test." A new section was added to the regulations which requires that all public buildings and institutions which use butane or propane, shall line-loop the building where appliances are used on more than one side of the structure. Other new requirements are:

The line must be the correct size to carry the correct Btu load. All stoves must be vented type and be properly vented, except small stoves up to 30,000 Btu in offices of such



New Liquefied Petroleum Gas Division of the Oklahoma state fire marshal's office organization in session at the Oklahoma State Capitol Aug. 11. Left to right: Logan D. Hyder, Hyder Plumbing & Supply Co., Chattanooga, secretary; Ralph M. Lillard, Blue Flame Gas Co., Shawnee; Dewey Wood, Butane Gas Co., Ardmore, chairman, and Milton G. Young, state fire marshal.

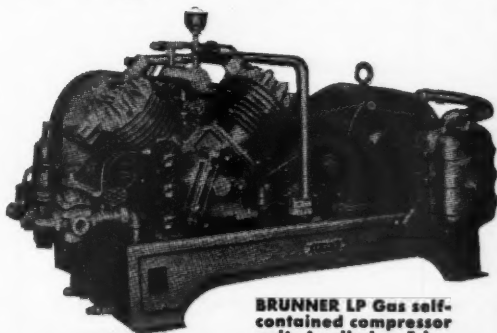
When you UNLOAD TANK CARS make sure they're EMPTY!

After all liquid petroleum has been transferred from a tank car or tank truck there is still a considerable quantity of vapor left in the tank. This cannot be recovered by a liquid pump. This vapor amounts to from 500 to 1000 lbs. of LP Gas in every tank car unloaded! You pay for this lost poundage as well as its transportation!

This vapor can be recovered with the Brunner LP Gas Unit, a compressor assembly that pumps volatile liquids and recovers their residue vapor. It is a package unit that is outstanding in speed, efficiency, safety and low cost.

BRUNNER MANUFACTURING CO.
UTICA 1, NEW YORK, U. S. A.

BRUNNER
SINCE 1906



BRUNNER LP Gas self-contained compressor unit, 4 cylinder, 5 hp.

**WRITE FOR THIS
NEW FREE BOOKLET**

It describes the Brunner LP Gas Unit and contains more illustrations, diagrams, tables and valuable information on the handling of LP Gas than any booklet ever issued.



PROPANE

*Have You Filled ALL Your
Consumers' Storage?*

This is the "Home Stretch" for
winter supplies and better
service.

CITIES SERVICE OIL CO.

HAS:—

THE EXPERIENCE
A UNIFORM PRODUCT
A DEPENDABLE SERVICE

Cities Service Oil Co.

(Delaware)

BARTLESVILLE, OKLA.
CHICAGO, ILL.

Other Sales Offices

CLEVELAND
ST. PAUL

KANSAS CITY
TORONTO

buildings. All copper tubing running across the floors must be properly protected and bracketed to the floor. No appliances shall be installed in basements of public buildings. Safety valves shall be connected ahead of each appliance in such buildings.

The board also adopted a motion that all laws in the ASME code that refer to the 1943 edition shall be changed to read, the "Latest Edition of ASME Code." This shall also apply to the NBFU code. A motion also was adopted requiring that all tanks used in Oklahoma, "should be manufactured with a 10% outage or slip tube gage except Division I and III."

The minimum distance requirements for installing containers under B.5 (3) General (b), was changed to read, "from 501 to 1200 gallons." Section (c) under this category, which provides that in case of buildings devoted exclusively to gas manufacturing and distribution operations, the minimum distances of containers from buildings may be reduced, was eliminated by the board.

A recommendation was made that all tanks supplied with liquid outlet be so labeled on the tank. A requirement was adopted that all transport trucks shall have electric flares and that bob-tail trucks have either flares or reflectors. The provision of the rules applying to containers, trucks and trailers used for transportation of LP-Gas also was amended to provide that in addition to other requirements "the exhaust shall be mounted under front of radiator to front of truck."

Hi-Boy Direct Sales

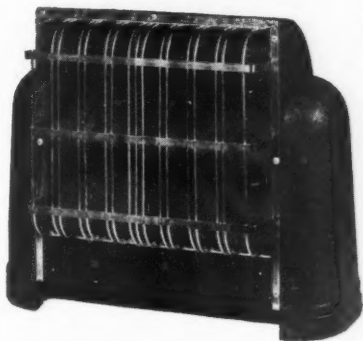
Direct sales of its gas-fired "Hi-Boy" furnaces to the trade—as a new policy—has just been announced by The Cor-O-Aire Heater Corp. of Cleveland. Previously, this line was sold through distributors only.

Sensationally New!

The Bien Infra-red Ray Heater

The Radiant-Ray space heater is radically different from heaters you have sold in the past. This modern, perfected heater heats by projecting a reflected beam of infra-red rays through directional baffles to the "living level" of the room. It brings the warmth directly to your body, gives instantaneous heat and concentrates a sufficient part of the heat rays at the floor level, thus eliminating the dreaded sensation of cold floors.

The Bien Line of space heaters include models with output of 10,000, 25,000, 40,000 and 50,000 BTU.



BIEN AIR CONDITIONING CO.

362 W. Garvey, Monterey Park, Calif.

Radiant-Ray is available vented or un-vented; 40,000 and 50,000 BTU. Dimensions: 24" high, 26" wide, 12½" deep.

RAPID MOISTURE REMOVERS

Eliminate

MOISTURE FREEZE-UPS

Assures constant gas service!



- Safe to use
- Easy to install
- Equipped with standard LH-P. O. L. fittings
- Available in a variety of sizes
- Refillable — can be used indefinitely

Your Wholesaler Can Supply You

Fine PRODUCTS CO.

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PARKHILL-WADE *Manufactures* *for the* **LP-Gas Industry**

- Metered Dispensers
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- Bottle Filling Scales
- Tank Car Unloading Racks
- Pre-fabricated Buildings for Bottling LP-Gas
- I.C.C. Cylinders, 20 & 100 lb.
- Portable Bottling Plants



**L.P.G.
DIVISION**

PARKHILL-WADE
*Consulting & Construction
Engineers*

5017 E. Anaheim-Telegraph Road
Los Angeles, California

Pacific Gas Corp. Inaugurates New Distributor Policy

Pacific Gas Corp., specialists in LP-Gas marketing, engineering and utilization, have commenced a program of adding new distributors, Harry W. Townsend, vice president, has announced.

Mr. Townsend also stated that PGC propane and equipment are now available in certain sections to distributors. The company suggests that distributors write for information concerning a PGC products franchise.

The services of Pacific Gas have been rendered largely to utilities, industry, and cities. Recently, however, the company has entered the bottled gas field, thus making available to distributors throughout the country a nationally advertised brand-name propane—"Pacific Gas."

Company Supplies Tanks

The company in certain instances is prepared to put in plants for distributors, supplying one or more tanks, bottling equipment, filling stations, etc. Distributors will be at liberty to buy cylinders themselves, or Pacific Gas, if they desire, will supply them.

Discussing the subject of the supply of propane, Mr. Townsend pointed out that when the propane price reaches a certain level, it becomes desirable to put in equipment to recapture propane which formerly was burned under stills. And some refineries have been installing de-propanizing and de-butanizing equipment. The supply also has been augmented by some new natural gasoline plants which have been built in natural gasoline territory.

Mr. Townsend pointed out that partly for the above reasons the shortage of propane that has existed for the last year has not been so much a



DISTRIBUTORS FOR

REGO

The BASTIAN-BLESSING Company

Hackney

PRESSED STEEL TANK CO.

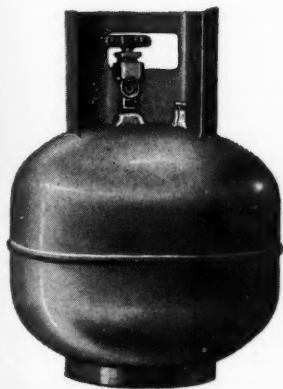
GAS EQUIPMENT COMPANY, Inc.

P. O. BOX 566
2620 South Ervay « DALLAS, TEXAS



I. C. C. BOTTLES

Immediate Delivery \$8.90—\$10.75



SPECIFICATIONS . . . 20 lb. (5 gal.) I.C.C. 4-B240—Gauge 3/16"—O.D. Width 14", Height 17"—P.O.L. & 10% valve—Set relief 375 lbs.—Low center of gravity—Stabilized safety factor.

TERMS. (No Exceptions) . . . 25% deposit with order; Balance sight draft B/L Att. or 1% discount full cash with order . . . \$8.90 equipped with 10% valve, minus P.O.L. valve. \$10.75 equipped with P.O.L. and 10% valve. F.O.B. Los Angeles.

ORDERS SHIPPED SECOND DAY AFTER RECEIVED . . . Direct Factory Shipments. Write for 250-500 and 1,000 lot quotations.

R. M. S. PRODUCTS COMPANY

L-P GAS EQUIPMENT DIV.
Box 229, Hollywood Station, Los Angeles 28, Calif.



Look for this registered trade mark and the name VIKING on all your rotary pumps. It is your assurance of a good, reliable pump for handling all L. P. Gas.

It means you have a pump based on the design of more than a million others. Built from sound rotary pump experience and know-how unsurpassed in the field.

Look to Viking, the rotary pump manufacturer who builds to serve you now and in the future. Be safe. Be sure. Buy Viking. Write today for free bulletin 2300B.



shortage of propane that could be produced, as a shortage of transportation. Within the past month, Pacific Gas has made a substantial increase in its tank car fleet.

Utilization equipment offered by the company includes steel storage tanks, skid tanks, spherical containers, bottles for domestic use, mixing and vaporizing apparatus and other devices. Pacific Gas is strictly an LP-Gas organization. It offers a design service, has manufacturing plants, carries on LP-Gas marketing operations through its own tank cars, and has complete facilities for constructing and equipping bulk plants.

Keith Clevenger Joins Staff Of National LP-Gas Institute

The National LP-Gas Institute, Tulsa, Okla., announces the addition of Keith Clevenger to its staff of instructors.

Mr. Clevenger will instruct classes in sales analysis and sales promotion as they relate to the LP-Gas distribution business and serve as promotional consultant to the Institute.

The Institute has planned these additional subjects for some time but up until Mr. Clevenger's appointment, had been unable to obtain an instructor with the desired qualifications. Mr. Clevenger's well-rounded experience in promotional and sales activities in the oil, gas, and LP-Gas industries gives him a valuable background.

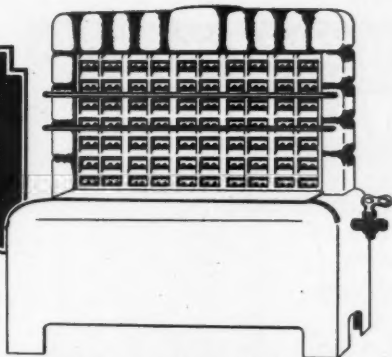


KEITH CLEVENGER

MODERN RADIANT HEATER

Exceptional value. Has heavy heat-reflecting refractory backwall. Fitted five (2-in-1) Venetian radiants of full-glow type. Has high-efficiency, non-clog burner, quick-action valve and precision adjustments. Rigid steel base finished in two-tone Ivory, durable and washable.

BRILLIANT FIRE *Radiant Heater*



WRITE FOR NEW BRILLIANT FIRE CATALOG NO. 47

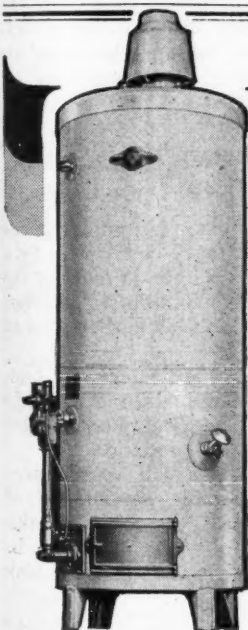


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Greater grows the demand for SECURITY Automatic Hot Water Heaters. More and more buyers seek the smart appearance, dependable performance, superior workmanship for which SECURITY is famed. Thousands of users are amazed at the efficiency, economy and long life of these gleaming Automatic Water Heaters. Operate on all fuel gasses. Now is the time to look to SECURITY . . . for leadership and for sales!

SECURITY

GAS FIRED



PRODUCTS

The "LONG-LIFE" LINE

SECURITY MANUFACTURING CO.

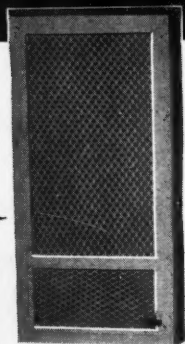
KANSAS CITY 3, MO.

WILLIAMS Vented WALL WARMOLATOR

**SIMPLE TO
INSTALL**

**NO PIT
REQUIRED**

**AVAILABLE
IN DUAL OR
SINGLE UNIT**



designed for 4" STUD WALLS

Ideal for apartments and small homes, Williams Wall Warmolators can be quickly installed in a standard 4-inch stud wall... require no pit. They are also suited to cement block or slab construction, and second-story installations. Warmolators are vented... all products of combustion are carried off through 4-inch oval flue. Cast iron burners correctly designed for natural, manufactured, or liquified petroleum gas, give years of trouble-free service. These units are AGA approved and eligible for FHA loans. Any type of thermostatic control may be installed with the Warmolator.

Send for Literature.

WILLIAMS RADIATOR COMPANY

Sponsors of better heating since 1916

1821 FLOWER ST. • GLENDALE 1, CALIF.

Range Shipments 40% Over 1946, Water Heaters Up 74%

Despite continuing steel shortages, the Gas Appliance Manufacturers Association reports that gas ranges produced and shipped the first six months of 1947 totalled 1,166,000 units, an increase of 40.6% over the 829,300 units shipped during the corresponding period in 1946. Of all ranges shipped, 25.5% were for use with LP-Gas.

The industry's 1947 gas range production is 10,600 units under its peak year of 1941, when 1,176,600 gas ranges were shipped during the first six months.

Automatic gas water heater shipments for the first six months of 1947 reached an all-time high of 937,700 units, representing an increase of 74.8% over this same period of 1946.

Indications are that 24.4% of the total shipments of automatic gas water heaters during the first six months' period of this year were for use with liquefied petroleum gas.

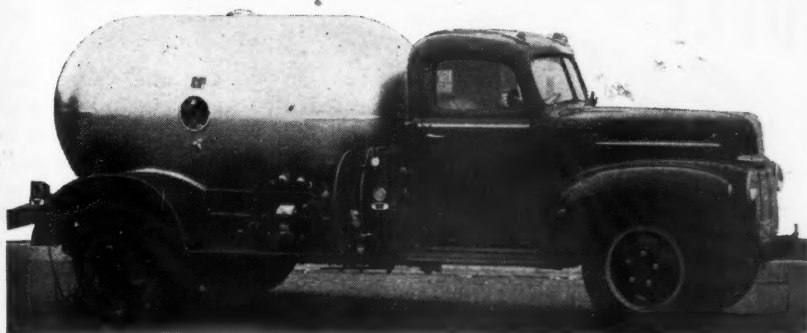
Steel Firm Installs Propane To Avoid Winter Shut-Down

The curtailment of production of steel, made necessary last winter by a shortage of natural gas in most of the leading districts has resulted in steps being taken to prevent suspensions in the coming winter.

In this connection Allegheny Ludlum Steel Corp. is installing 20 tanks at its Brackenridge, Pa., plant to hold 360,000 gallons of propane.

It is believed this will be insurance against any possible curtailment of operations during the cold months. This amount of propane will be shipped during the summer in tank cars.

It will be equivalent to about 32-725,000 cubic feet of natural gas.



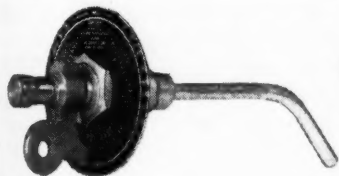
1000 net gallon LP-Gas delivery unit built for F. T. Carpenter
of Phoenix, Arizona, by

SUPERIOR TANK & CONSTRUCTION CO.

6155 SOUTH EASTERN AVENUE

LOS ANGELES, CALIFORNIA

Phone ANgelus 4157



Extra Accuracy, Convenience
and Safety with . . .

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See Pages 96 and 97

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NEW MEXICO

SOUTHERN CALIFORNIA

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Western Gas Equipment Co.

Office and Warehouse

202 N. GARFIELD, P. O. Box A

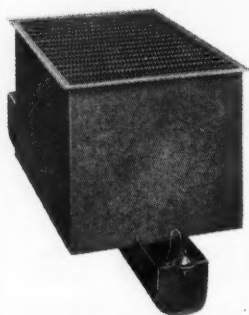
MONTEREY PARK, CALIF.

Phone Cumberland 3-2239

HOLLY

Stubby

FURNACES



for
BUTANE
PROPANE
NATURAL GAS

Available in both flat and dual register types.

Holly Stubby Floor Furnaces—famous for 3 exclusive features shown below—are available in all models for L.P. Gas with manual or thermostat controls. Made in both flat and dual types with 30,000 and 45,000 BTU input. 57,000 BTU input is available in dual type only. Mail coupon for full information.



Eliminates the pit. Meets all FHA requirements.

Installs from above the floor. No extra construction.

Removable watertight pan contains all controls.

HOLLY MANUFACTURING COMPANY

875 So. Arroyo Parkway,
Pasadena 2, Calif.
Please send information on the Stubby for
L. P. Gas.

Name _____

Address _____

New Regulations

South Carolina

LP-Gas regulations have been adopted by South Carolina, with the NBFU Pamphlet No. 58 to be used in its entirety, with the addition of the requirements that all dealers register, giving data concerning the extent of their operations, and requiring the maintenance of a record of installations. Also, it was made unlawful for an operator to leave the immediate vicinity of his truck unless it is parked in its usual place.

Florida

Regulations governing dealers in LP-Gas and appliances, which were authorized by the 1947 state legislature, were announced recently by State Treasurer and Fire Marshal, Edward Larson. The standards for the design, construction, and installation of equipment and appliances as set out by the NBFU were included in the regulations. It is required that all dealers obtain permits for tank trucks and containers and label all automatic gas appliances. The act also provides for licensing of dealers and installers of LP-Gas appliances.

Monterey Park, Calif.

An emergency ordinance providing for the regulation of LP-Gas was voted upon recently by the city council. It provides that no LP-Gas can be transferred from one container to another within trailer courts and requires that all transfers be made in open areas approved by the fire chief, and

BUTANE-PROPANE News

Butane & Propane

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Carter high quality Butane and Propane are unsurpassed as domestic and industrial fuels. Bulk loading points, St. Elmo, Illinois, Seminole and Stonewall, Oklahoma. Wholesale only. Your inquiries are solicited.

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OCTOBER — 1947

181

Quality and Service

For All Your
L. P. GAS EQUIPMENT



CARBURETION, HOSE
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Our equipment prices are competitive for like quality and quantity.

WE WELCOME YOUR INQUIRIES
ON CARBURETION PROBLEMS

ACME EQUIPMENT CORP.

313 So. Pearl St., Dallas 1, Texas
Phone: Riverside 4089

that a written permit must be obtained from the chief for transporting commercial size tanks on the public thoroughfare when they contain fuel or vapor. Also, an upright position must be maintained with markings indicating "Inflammable" visible for 200 feet.

Municipal Ordinances

The cities of Montgomery, Ala., and Toledo, Ohio, have adopted LP-Gas regulations, based on the standards of the NBFU Pamphlet No. 58.

Jacksonville, Fla.

The city council received an amended city ordinance placing a graduated tax upon all utilities in the city. This would place a 10% tax on all monthly bills of \$500 or less; 5% on the next \$15,000, and a 1% levy on all monthly bills over \$2000. The tax will apply to LP-Gas, manufactured gas, electricity, water, and telephone service.

National Safety Congress Set for Chicago, Oct. 6-10

Nearly 10,000 safety-minded people from all corners of the United States and other parts of the world are expected to pour into Chicago for five days from Oct. 6-10 for the 35th National Safety Congress and Exposition.

Programs for more than 200 sessions on all phases of safety have been planned, and four large Chicago hotels have been engaged to house the delegates and their activities.

Booklet on Combustion Systems

A new booklet describing gas-fired combustion systems and burners has just been released by Surface Com-

NEW COMPACT RANGE

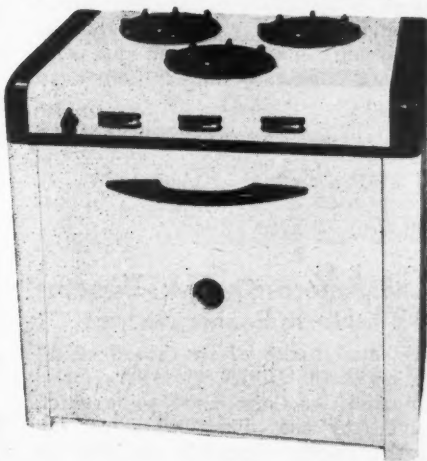
Now available for immediate delivery, this small, modern range is ideal for trailers, cabins and apartments. It has full size oven with heat indicator. The patented burner design and unique burner arrangement are added features which help sell this compact cooking unit.

DIMENSIONS:

22" high—24" wide—20" deep

Large Size Range Available
SOON!

36" high—24" wide—20" deep

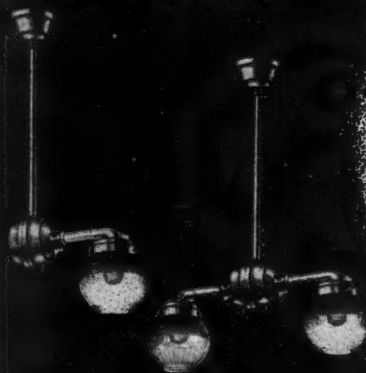


Hansen Burner Products

10600 Prairie Ave., Inglewood, Calif.

Make "year 'round" profits with

Dealers everywhere are making fine profits with HUMPHREY L-P Gas lamps. Here is dependable lighting service plus style and durability. Write for complete description and prices.



**HUMPHREY
L-P LAMPS**

GENERAL GAS LIGHT CO. • Kalamazoo • Michigan

bustion Corp., Toledo, Ohio.

The booklet explains the basic principles of gas-fired combustion systems in an easy-to-understand language. It also describes the four broad classifications of burners: atmospheric, immersion, low and high pressure types, telling how they function and giving recommended applications.

Sectional drawings of the various types of burner equipment and charts illustrate the text. It is free to dealers who write into the Combustion Corp. offices.

C. M. Ambrose Named Director LPGA North Pacific District

By mail ballot of the board of directors of the LPGA, C. M. Ambrose, Liquefied Gas Corp., Seattle, has been elected to the directorship of the North Pacific District, to fill the vacancy created by the resignation of Carl Hopp, American Pipe & Construction Co., Steel Tank & Pipe Divi-

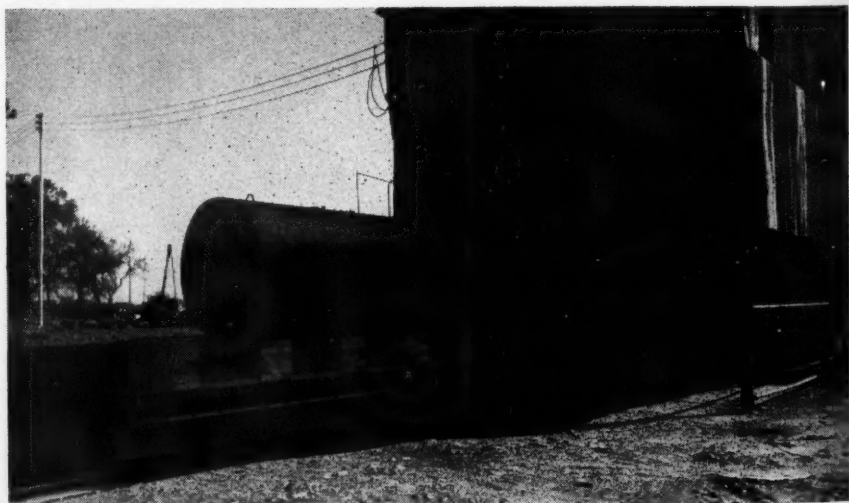
sion, Portland, Ore., who was elected to these directorship and the directorships of the state of Oregon.

Heat Treating Furnace Installed at Southland Steel

A heat-treating furnace designed to bring the welded metal seams and parent metal of "Payload" delivery and transport truck tanks together is in operation at the Southland Steel Co. in Dallas.

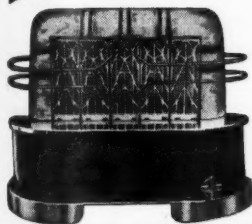
The furnace, used in the manufacture of lighter weight truck tanks, is also large enough to take in large-size transport tanks. For 1-in. thickness of steel, each tank body is stress-relieved for one hour at 1200 degrees.

Stress relieving and heat treating of the tanks assures a uniformity of tensile strength and allows the tanks to carry a greater load of LP-Gas. "Payload" tanks are constructed according to ASME Code U-68.



The new heat treating furnace of the Southland Steel Co.

ARMSTRONG



"when it's an
Armstrong ...
depend on it
... it's the
finest of its
kind"

RADIANT HEATER

No. 1690 is a popular seller because it is good to look at and will add to the comfort of any room in the House. Produces a clean, dry heat. Brown vitreous enamel finish. 17 3/4" high. 20,000 or 24,000 B.T.U.

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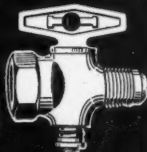
ARMSTRONG PRODUCTS CO.

Quality Since 1899

Dept. BP

Huntington 12, W. Va.

BRASS FITTINGS COPPER TUBING TOOLS FOR TUBING VALVES and COCKS



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OR WRITE
FOR PRICES
AND INFORMATION

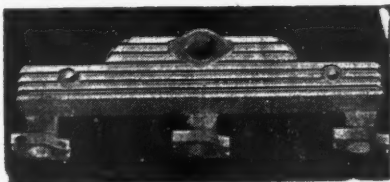


**MIDLAND
PARTS & BEARINGS CO.**

IRVING,
KANSAS

1418-A Grand Ave.,
Kansas City, Mo.

INCREASED POWER!



Our dealers are reporting tremendous increases in both power and mileage after "Bu-Powering" their automotive conversions.

An installation on your own truck will prove the advantages of this special intake manifold on LP-Gas conversions.

Ellis Manifold Co.

1708 S. Soto Street, Los Angeles 23, Calif.

THOMAS TRUCK
of Keokuk

GAS CYLINDER and APPLIANCE TRUCK

- Truck carries load not trucker.
- Makes job easy for one man.
- Semi-pneumatic tires protect floors, lawns

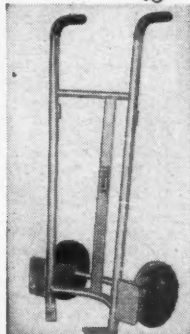


This truck made especially to handle gas cylinders, stoves, crates, and the like. Avoids back-breaking lifting. Easily handles cylinders up to 100 lb. cap. 50" Ht.; width 24"; 10 x 2 1/2" pneumatic wheels, Hyatt bearings. Price \$17.95 f.o.b. less strap. Order one on return basis.

**THOMAS
Truck & Caster Co.**

4785 Mississippi
River

Keokuk, Iowa



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Classified advertising is set in 6-point type, without border or display, at the rate of 15 cents per word per insertion; minimum charge per insertion \$3. Box numbers for replies count as 5 words. Count as a word each one letter word and each group of figures. Classified advertising is only accepted when payment accompanies order. Copy and payment must reach publisher's office prior to 10th of month preceding publication.

Free to World War 2 Veterans: Situation wanted ad for three successive months.

HELP WANTED

WANTED MAN WITH PROPANE EXPERIENCE for credit and office manager. In rapidly expanding Canadian territory. State all qualifications in your first letter. Write Box 475, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

SITUATIONS WANTED

TWELVE YEARS TUBE COUPLING, VALVE and brass fittings sales engineering experience. Seeking connection with L.P. Gas equipment manufacturer. Prefer midwest area with Chicago residence. Box 470, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

NAVAL ACADEMY GRADUATE WITH SIX years personnel and precision machinery experience, six months oxygen, acetylene and propane experience. Prefer sales promotion in Michigan, Pennsylvania, or New York. Box 410, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

10 YEARS EXPERIENCE IN LP-GAS installation and service. Service manager, store manager, bulk storage, bottles, all appliances and refrigeration. Prefer salary and commission basis. Box 445, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

BUSINESS OPPORTUNITIES

WANTED TO BUY—LPG BUSINESS in Maryland or Virginia. We have bulk storage. Would like to buy retail distributorship. Box 485, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

FOR SALE—NEW LPG AND APPLIANCE business. On Northwest coast. Virgin territory. 10,000 gal. summer load. Growing fast. \$15,000 will handle. **BOTTLED GAS & APPLIANCE**, Rt. No. 3, Box 756, Astoria, Ore.

AN LP-GAS AND APPLIANCE BUSINESS located in Rocky Mt. area. 70,000 gallon bulk storage. Five delivery trucks in excellent condition. One transport trailer. Retail approx. one million gallon of LP-gas per year. Gross business last year \$360,000.00. It will take \$150,000.00 to handle this. Balance on terms. Write in care of Box 495, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

FOR SALE—INDEPENDENT LIQUEFIED Petroleum Gas and Appliance Business, well established, franchises covering three counties. All assets, plants, equipment, merchandise. Price \$100,000. Amador Realty Company, Jackson, California.

NEW BUTANE-PROPANE PLANT for sale in the Rocky Mt. area. Truck, storage tanks and all equipment are new and in excellent condition. Territory is large and business is growing. A large investment is not required. Address all inquiries to Box 490, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

WANTED TO BUY—LPG BUSINESS in Maryland or Virginia. Specify size of storage facilities and description of operation. Box 480, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

EQUIPMENT WANTED

100 LB. ICC PROPANE CYLINDERS. NEW or used. Write giving full details, type valve and delivery. Box 265, Regina, Sask.

WILL PAY TOP PRICES FOR NEW ICC—4-B-240 Pressed Steel or Scaife cylinders, 100-lb. size. Address Box 430, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

EQUIPMENT FOR SALE

FOR SALE—BUTANE SEMI-TRAILER. 125 lb. W.P. 3550 W.C. U-69 Twin Tanks, Air Brakes. Write C. W. Holland, 311 Garrison St., Leland, Miss.

FOR SALE—STOVE ORIFICES, 1/4, 3/8, and 1/2 flare nuts and other L.P.G. fittings. Write FUEL GAS CO., 5905 N. Saginaw St., Flint, Mich.

CYLINDER VALVES—USED. SERVICEABLE, standard 3/4" inlet P.O.L. outlet. No relief valve. Approx. 500 at 80c each. Also used 500 lb. pressure gauges. **THE VERKAMP CORPORATION**, Cincinnati 13, Ohio.

FOR SALE—IMMEDIATE DELIVERY! Eureka Smokehouse Burner Assemblies! For meat smokehouses using bottled gas. Completely automatic. Clean, filtered smoke. Distributes heat uniformly. Low gas consumption. Automatic temperature and pilot control. Less product shrinkage. Easily installed. Write for descriptive booklet. Eureka Equipment Co., P. O. Box 396, Beloit, Wisconsin.

FOR SALE—1942 CAB-OVER-ENGINE 1½ ton Chevrolet Truck. New in 1944. Equipped with 690 gross gallonage. Propane sphere and combination steel bed which will hold 30 bottles, hose reel with 50 feet 1½" propane hose, 50 feet ¾" vapor hose, Smith Pump and Meter, two speed rear axle, 8¼ rubber. Truck in very good condition. Rural Gas & Appliance Company, 6th & Elm Streets, Beaumont, Calif.

FOR SALE—TANKS, FITTINGS FOR IMMEDIATE delivery; 150 gallon Butane tanks and fittings, also 250 and 500 gallon Propane tanks and fittings. For delivery in 30 days—750 gallon and 1000 gallon Propane tanks and fittings. Kenney Tank Installation Co., 2132 No. Halstead St., Chicago 14, Ill.

FOR SALE—1941 CHEVROLET 1½ TON Twin Butane Tanks. Water capacity, 1100 gal. 1942 INTERNATIONAL KS-5—1220 gal. 200 lb. WP Tank.

1946 CHEVROLET 2-TON 2-SPEED REAR end, 1200-gal Water Gallons—Twin Tanks 600-gal. each.

GEORGE SELF BUTANE COMPANY
Ponca City, Oklahoma

FOR SALE—1946 STUDEBAKER 1½ TON truck, 600 gal. net sphere, Smith Pump, Pittsburgh Meter, 50 foot ¾ in. vapor return hose, 50 ft ½ inch liquid hose. Meter, throttle, power take off shift and vacuum operated clutch in rear. Ensign Carburetor and regulator on truck. Two speed Timken axle, 8-25x20 tires. Cost \$4300. Will take \$3800 cash. Driven about 4000 miles. Warren Ryan, 1239 N. Hamilton, Pomona, Calif.

WE HAVE A GOOD STOCK OF THE FOLLOWING type of pumps: 2" Roper Propane Truck Pumps, 2" Peerless Gear Type Rotary Truck Pumps similar to Viking 90 gallon, 2" Yale & Towne Rotary Truck Pumps, 2x2½" Corken Bulk Plant Pumps with 3 & 5 HP, 3 phase explosive proof motors, 2½" Peerless Bulk Plant Pumps with Motors, 1½x¾" Peerless Bottle Filling Pumps with single phase motors. Lubbock Machine Co., Lubbock, Texas.

FOR SALE—ONE MODEL M-3 SMITH Butane-Propane pump with steel base, flex. cplg. \$250. One M-2 Smith Propane-Butane Pump with steel base and flex. cplg. \$160.00. Both pumps brand new in original crates. Also 8 used American 5-B Iron case propane meters at \$25.00 for lot. GAS SERVICE CO., Coldwater, Mich.

FOR HIRE—PROPANE OR BUTANE transport. 4792 water gallons. Texas haul preferred. Almost new equipment. Write Box 425, BUTANE-PROPANE News, 1709 W. 8th St., Los Angeles 14, Calif.

New Incorporation

Oklahoma Butane Motor Fuel Co., Miami, Okla., capitalization \$50,000, and the Miami Butane Co., capitalization \$10,000. Incorporators: Fred DeMier, Jr., Martha K. DeMier and J. C. Byers.

TOO MANY REPLIES!

On September 2nd we received the following letter:

"Some months ago the writer sent you an ad for your HELP WANTED column and we are still getting replies. It was to be for the one insertion only . . . hope the ad is not still running as we filled the job some time ago."—J.S.B.

HIS AD RAN ONCE
IN THE JULY ISSUE.

GET FAST ACTION

by telling your story in the Butane-Propane News Classified Columns at 15c per word—\$3 minimum.

Closing Date—10th previous month

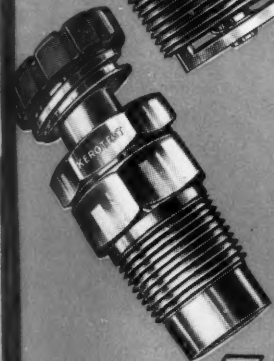
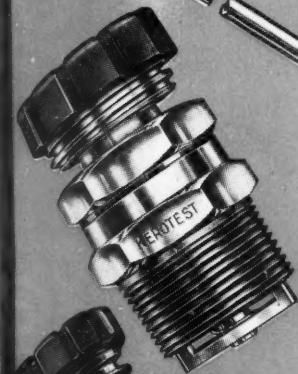
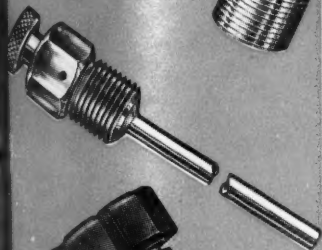
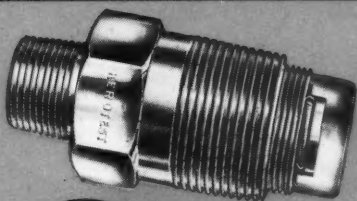
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1709 W. Eighth Street
Los Angeles 14, Calif.

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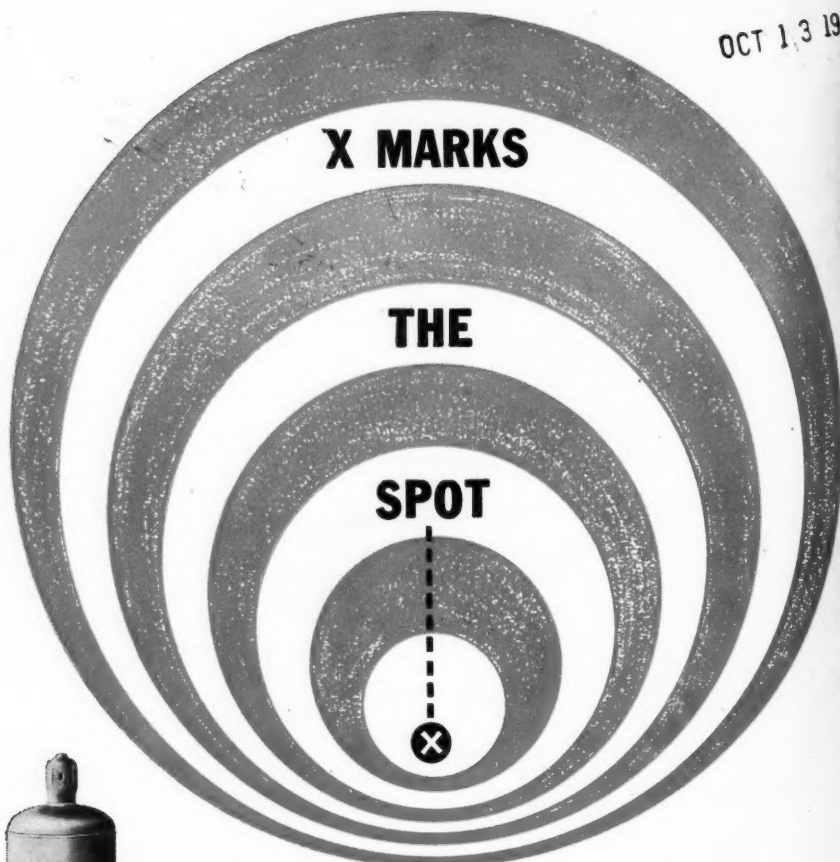
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